Suruhanjaya Komunikasi dan Multimedia Malaysia

Malaysian Communications and Multimedia Commission

GUIDELINES ON IMPLEMENTATION OF ACCOUNTING SEPARATION IN MALAYSIA

21 December 2012

VERSION 1; REVISION 0

CONTENTS

ABBREVIATIONS AND GLOSSARY

Term	Definition
ABC	Activity Based Costing
AS	Accounting Separation
Attribution	The process of attributing direct and directly attributable costs to services or products
Apportionment	The allocation of unattributable costs in a proportional manner
BU	Bottom-up
CCA	Current Cost Accounting
CMA	Communication and Multimedia Act 1998
DSL	Digital Subscriber Line
ERP	Enterprise Resource Planning
FAR	Fixed Asset Register
FAC	Fully Allocated Cost
FCM	Financial Capital Maintenance
GL	General Ledger
HCA	Historic Cost Accounting
HSBB	High Speed Broadband
HR	Human Resources
IBP	International Best Practise
LRIC	Long Run Incremental Cost
MASB	Malaysian Accounting Standards Board
MCE	Mean Capital Employed
MCMCA	Malaysian Communications and Multimedia Commission Act 1998
MEA	Modern Equivalent Asset
MFRS	Malaysian Financial Reporting Standard
MIA	Malaysian Institute of Accountants
MVNO	Mobile Virtual Network Operators

NPV	Net Present Value
NRV	Net Realisable Value
OCM	Operating Capital Maintenance
PI	Public Inquiry
PSTN	Public Switched Telephone Network
PV	Present Value
RAN	Radio Access Network
RFS	Regulatory Financial Statements
SKMM	Malaysian Communication and Multimedia Commission
SMP	Significant Market Power
SMS	Short Messaging Services
USP	Universal Service Provision
VOIP	Voice over Internet Protocol
WACC	Weighted Average Cost of Capital
WiMAX	Worldwide Interoperability for Microwave Access

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1. INTRODUCTION

1.1 Outcome of Public Inquiry Process

SKMM's final views and decisions on the implementation of accounting separation (AS) were set out in its Public Inquiry Report on Implementation of Accounting Separation in Malaysia (**PI Report**) released on 30 November 2012.

Prior to the publication of the Public Inquiry (PI) Report, SKMM consulted widely and openly with all interested stakeholders, including:

(i) Consultations with a broad range of licensees prior to the release of a PI Paper on 7 September ;

(ii) Publication of a PI Paper on 7 September 2012, which set out SKMM's preliminary views on the implementation of AS and the form it might take and requested comments from interested parties

(iii) Publicity in relation to the PI Paper in the media and on SKMM's website;

(iv) Conducting a clarification session on 27 September 2012 during which SKMM responded to questions raised by stakeholders in relation to the PI Paper

(v) Receiving written submissions from interested parties by 31 October 2012.

(vi) Discussion with the Malaysian Institute of Accountants (MIA) on matters relating to audits.

Having considered all the submissions received, SKMM issued the PI Report.

As noted in the PI Report, all operators will be subject to the requirement to implement AS. In response to the industry's concerns regarding cost and administrative burden, SKMM has decided to adopt a two-level approach to AS. Detailed reporting as proposed in the PI Paper will apply only to those operators whose revenue and total assets arising in Malaysia both exceed RM 3 billion. Entities whose revenue or total assets fall below this threshold ("Small Operators") will be required to submit less detailed regulatory financial statements (RFS) as specified in Appendix A to these Guidelines, on a historic cost basis only.

1.2 Purpose of the Guidelines

Accounting separation (AS) involves the production of regulatory financial statements at the level of individual services or business units within an operating company. It requires:

- A set of AS principles and policies
- The production of RFS (separate accounts) based on sound analysis and economic principles of cost causation
- The need to fairly present the financial interactions between different parts of the operators' business and the transactions between them (transfer charges)
- The need to fairly present the profitability of different retail and wholesale products and services
- A reconciliation back to the firms' statutory accounts; and
- Proper documentation of AS data sources and methodology
- To be subjected to independent verification (audit)

The Guidelines set out in the rest of this document are based on

- the draft requirements set out in the PI Paper; and
- SKMM's final views, including changes to the AS requirements in response to comments received from operators, as set out in the PI Report.

The purpose of the Guidelines is to:

(i) provide a structured approach to Operator's adherence when submitting AS financial reports and related information to SKMM

(ii) help promote the comparability of information submitted by operators ;

(iii) ensure that Operators report to SKMM based on a common timetable, and on a consistent and accurate basis;

(iv) assist Operators to better understand SKMM's information requirements when preparing their own AS documentation for submission to SKMM for review.

Further to the requirement to submit RFS annually, SKMM may require, from time to time, any Licensee to provide further information in relation to specific studies or investigations.

1.3 Implementation Timescales and Working Group

A timetable was issued as part of PI Report. This envisages a phased programme of activities during 2013 leading to the production of the first set of RFS during 2014.

A list of activities and key dates within the programme is set out in Section 11 of the Guidelines.

The implementation programme includes the creation of an AS Industry Working Group by SKMM which will assist discussion and resolve more detailed issues as required.

2. SCOPE AND COVERAGE OF ACCOUNTING SEPARATION

2.1. Scope of AS and Small Company Requirements

As set out in the PI Report, SKMM has decided that:

(i) Operators whose revenues or total assets, arising in Malaysia, fall below RM3 billion in any financial year, are subject to an abbreviated RFS requirement. The formats of the required statements are provided in Appendix A of these Guidelines.

(ii) They will also need to provide to SKMM a statement signed by a company director confirming that the RFS are properly prepared in accordance with the submitted documentation and comply with regulatory obligations.

(iii) The RFS should be accompanied by accounting documentation that specifies the accounting policies and methods adopted in the preparation of RFS.

(iv) Both fixed and wireless operators who exceed the small operator threshold, are required to implement AS and submit to SKMM full RFS as described in Appendix B;

(v) AS obligations only relate to activities carried out in Malaysia;

(vi) RFS should be prepared for specified services at both the wholesale and retail level; and

(vii) The services to be separated will be kept under review and revisited as circumstances change (e.g. following the emergence of new services).

2.2. Fixed Network Services

For fixed operators ten wholesale and eight retail services have been identified, along with an "other" category for any remaining activities. Definitions of these services are provided below in Table 1.

Table 1 Fixed Network Services

Market	Services
Wholesale	Wholesale exchange lines
	Wholesale local access – copper
	Wholesale local access – fibre
	Wholesale broadband access
	Wholesale leased lines
	Backhaul services
	Call origination
	Call termination
	Transit services
	Interconnection circuits
	Other

Market	Services
Retail	Retail exchange lines – business
	Retail exchange lines – residential
	Local calls
	National calls
	International calls
	Calls to mobiles
	Leased lines
	Broadband
	Other
Other	n/a

The services listed in Table 1 are based on information that has been gathered from operators. In a dynamic industry, such as telecommunications, the services provided are likely to evolve frequently and SKMM intends to review the services from time to time.

The wholesale services are defined as follows:

(i) Wholesale exchange lines: all wholesale residential and business exchange lines including rental and connection services.

(ii) Wholesale local access - copper: all unbundled local loop (LLU) products (full access, line sharing, sub-loop and bitstream services) provided over existing copper networks, including services supplied to third party ISPs but excluding services provided over alternative technologies and wholesale broadband access services. This includes rental and connection services.

(iii) Wholesale local access - fibre: all access services provided over fibre, including rental and connection services.

(iv) Wholesale broadband access: all wholesale broadband products over existing copper broadband networks, including those to third-party internet service providers (ISPs) but excluding simple resale products. This includes rental and connection services.

(v) Wholesale leased lines: all wholesale trunk and terminating segments of analogue and digital leased lines. This includes rental and connection services.

(vi) Backhaul services: all backhaul services provided to other operators, including trunk and terminating segments and rental and connection services.

(vii) Call origination: the origination of calls on the public telephone network provided at a fixed location. This includes equal access services.

(viii) Call termination: the termination of calls on an individual public telephone network provided at a fixed location.

(ix) Transit services: the transit of calls on an individual public telephone network provided between two fixed locations at which other networks interconnect.

(x) Interconnection circuits: all interconnection circuits between the exchanges of two interconnecting operators in order to allow traffic to pass between their networks.

(xi) Other: Any other wholesale services.

The retail services are specified as follows:

(i) Retail exchange lines - business: Non-residential public switched telephone network (PSTN) and integrated services digital network (ISDN) access lines provided over the fixed public telecommunications network, including rental and connections.

(ii) Retail exchange lines - residential: Residential public switched telephone network (PSTN) and integrated services digital network (ISDN) access lines provided over the fixed public telecommunications network, including rental and connections.

(iii) Local calls: Residential and non-residential local calls provided at a fixed location.

(iv) National calls: Residential and non-residential national calls provided at a fixed location.

(v) International calls: Residential and non-residential international calls provided at a fixed location.

(vi) Calls to mobiles: Residential and non-residential calls provided at a fixed location that are made to mobile telephony and WiMAX networks.

(vii) Leased lines: All analogue and digital retail national and international leased lines (terminating and trunk segments), regardless of capacity and distance and including rental and connection services.

(viii) Broadband: Residential and non-residential retail broadband services over existing copper networks of all speeds and including rental and connection services.

(ix) Other: Any other retail services, including, for example, dial-up services (if applicable) directory enquiry and payphone services.

The Other market contains all residual activities (such as equipment sales) and is necessary for the purposes of reconciling with the statutory accounts (see Section 9).

2.3. Mobile Network Services

For mobile operators seven wholesale and five retail services have been identified, along with an "other" category.

The mobile services are set out in Table 2 and defined below:

Table 2 Mobile Network Services

Market	Services
Wholesale	Call origination
	Call termination
	MVNO access
	National roaming
	International Roaming
	RAN Sharing
	Backhaul Services
	Other
Retail	Connections and subscription
	Voice
	SMS
	Data
	International roaming
	Other
Other	n/a

The wholesale services are specified as follows:

(i) Call origination: The origination of calls on mobile networks.

(ii) Call termination: The termination of calls on mobile networks.

(iii) MVNO access: The provision of call services to mobile virtual network operators.

(iv) National and International Roaming: The provision of wholesale roaming services to other mobile networks.

(v) Radio Access Network (RAN) Sharing: Refers to any kind of active and passive sharing of radio access network.

(vi) Backhaul Services: The link from the base station to the core network via any technology.

(vii) Other: All other wholesale services.

The retail services are specified as follows:

(i) Connections and subscription: The connection fees and monthly subscription.

(ii) Voice: All calls (on-net, off-net national and international to mobile and fixed networks) provided over mobile networks, whether pre-paid or post-paid.

(iii) Short messaging services (SMS): All SMS (on-net, off-net national and international to mobile and fixed networks) provided over mobile networks whether pre-paid or post-paid.

(iv) Data: All data services provided over mobile networks whether pre-paid or post-paid such as internet access, video calls and multimedia messaging services (MMS).

(v) International roaming: All voice calls and other services provided to international roaming customers.

(vi) Other: All other retail services, such as content and directory enquiry services.

Again, a general other category is included for any residual activities, such as equipment sales.

3. ACCOUNTING SEPARATION PRINCIPLES AND POLICIES

3.1. Overview and General Principles

The starting point for AS is the same as for an operator's statutory accounts. This means that the RFS will also need to comply with: the Malaysian Companies Act and the applicable accounting standards; fundamental accounting concepts and principles; the accounting policies of the company; and the format and content of certain financial statements.

The fundamental principles of financial information reporting are relevance, reliability, comparability (over time and across reporting entities), intelligibility, materiality, and consistency (of treatment over time). In the case of AS there is also the need for transparency, causality and objectivity in the attribution of revenues, costs, assets and liabilities to different services.

When producing RFS, operators should use accounting policies that are consistent with their statutory accounting policies. These accounting policies should follow closely the Financial Reporting Standards required by the Malaysian Accounting Standards Board (MASB) in terms of recognition and disclosure of material transactions and balances, and their effect on the Income Statement and Mean Capital Employed (MCE).

RFS should be reconciled to the group statutory accounts, which consolidate, on a historic cost basis, the financial statements of the holding company and all subsidiary undertakings. Where a subsidiary company's accounting policies do not conform to the group's policies, these should be adjusted on consolidation in order to present the financial information on a consistent basis.

Appendix E describes the most significant and relevant accounting policies for the purposes of producing RFS. When the first set of RFS is produced for 2013, the accounting policies should match those in the operators' 2013 statutory accounts.

4. REVENUE RECOGNITION AND ATTRIBUTION

4.1. Overview and general principles

For the purposes of preparing RFS, operators should apply the same accounting policies for revenue recognition that they use in their statutory accounts.

Revenues should be recognised when it is probable that the economic benefits associated with the transaction will flow to the operator and the amount of the revenue can be measured reliably.

The majority of revenues can be directly identified to the services and products specified in Table 1 and Table 2 above. In any instances where revenues cannot be attributed directly, they should instead be attributed using billing data.

Where revenues are earned from non-telephony services they should be attributed to the relevant activities on the basis of causation.

5. COST ATTRIBUTION

5.1. Overview of Cost Attribution

The cost guidelines which follow reflect those in the PI Paper. Further, as noted in the PI Report, SKMM also intends to lead Joint Working Group discussions on:

- the surveys which need to be developed for the year 2013 onwards
- the cost classification categories
- the cost drivers and practicalities of data collection

The historic cost information underlying the statutory accounts is the normal starting point for attributing costs to different services. Since all costs are attributed or, where that is not possible, apportioned to services, the process is referred to as fully-allocated costing. The same process is used in current cost accounting (CCA) but the latter involves additional depreciation entries. An overview of the cost attribution process is provided in Figure 1.

The first step in cost attribution is to organise the company's costs into those associated with:

(i) Activities, normally within broad categories of functional groupings such as maintenance or marketing and sales functions; and

(ii) Network plant groups such as switching and within each plant group by more detailed network components.

Once costs have been attributed to activities or plant groups they can then be attributed to products and services (either directly or indirectly).

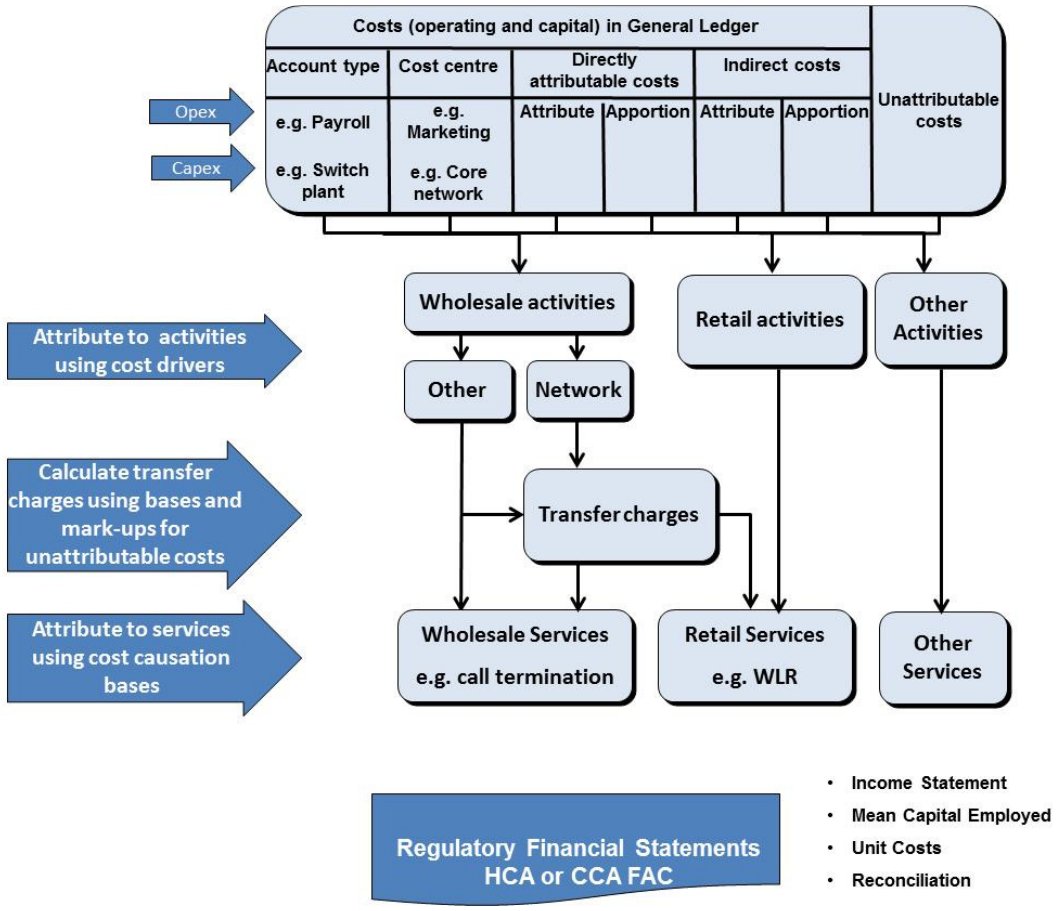
The cost attribution process should reflect the principle of cost causation, as far as possible. Costs can be attributed to services in a number of ways. For example,

(i) Network costs (such as depreciation of equipment, maintenance and other support costs) can be attributed directly to plant groups and then to services based on service volumes and engineering studies and analysis of how different services use different types of equipment.

(ii) Other types of costs, such as payroll costs for engineering and field staff, can be attributed in an intermediate step to network plant groups and or support

functions using activity based costing (ABC[1]) or surveys, and then attributed to services in the same manner as those plant categories or support functions are attributed to services.

Figure 1: Cost Attribution Overview



Source: NERA.

For the purposes of attribution to different services, a firm's costs are categorised as follows: direct; directly attributable, indirectly attributable and unattributable. These categories are described, with examples, in Section 5.4 below.

[1] Staubus, George J., *Activity Costing and Input-Output Accounting* (Richard D. Irwin, Inc., 1971).

5.2. Cost Causation and Cost Drivers

The identification of cost causation is a precondition for developing an appropriate cost attribution method. The term "cost driver" is normally used to describe any factor that causes a change in the cost of an activity to be incurred. An activity can have more than one cost driver. For example, in a fixed local access network, the external line plant maintenance costs in the local distribution side of the local switch will be driven mainly by the number of faults and also by the time taken to repair the faults.

The attribution of costs can be undertaken for all types of telecommunication network, both fixed and mobile, although there will be some specific aspects and features of network design and operation in each type of network.

Figure 2 below shows a highly simplified view of cost causation in a telecommunications network. The arrows show the general direction of causation[2]. Thus, for example, network plant assets (capital costs) are caused by the need to provide network services. In some cases, the relationship between cost categories operates in both directions (indicated by the arrows pointing in both directions). This is because one cost category both drives and is driven by another cost category.

The process of deriving fully allocated costs essentially involves reversing the direction of the arrows in the diagram and attributing the different types of cost to the services that directly or indirectly give rise to them. For example, plant capital costs are attributed to services according to the extent to which each service uses the equipment concerned.

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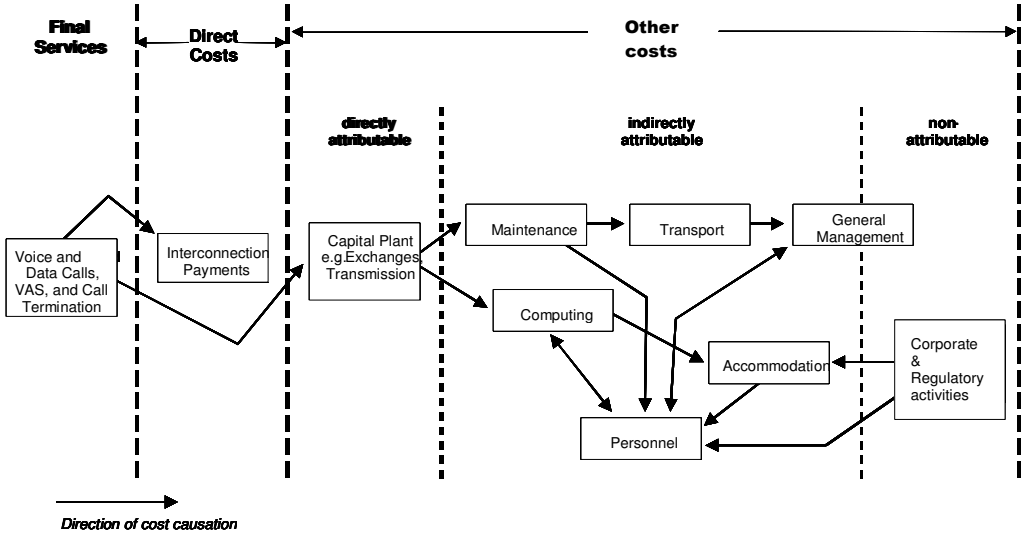
[2] To prevent the diagram from becoming unmanageable, not all the relevant arrows are shown. For example, no arrow is shown from General Management to Accommodation even though the former would require the latter as an input.

Figure 2: Highly Simplified Example of Cost Causation in a Telecommunications Network



Source: NERA.

Any fully allocated costing system requires a substantial amount of information about cost drivers and the linkages between different cost categories. More examples are provided in the following sections.

5.3. Cost Categories used by Operators in Malaysia

SKMM have been provided with the cost categories (account codes or chart of accounts) which are currently used in the general ledger systems of the operators. While there are differences between the operators, in general:

(i) Operating costs are either analysed by account type or natural expense, such as payroll (salaries and wages); or

(ii) By cost centre or function such as marketing; and

(iii) Depreciation is analysed by plant group.

This provides the starting point for cost attribution to services. However, apart from the identification of the direct costs of different services, which is used for the purpose of calculating gross margins, there appears to be no process of attributing network costs to services at present.

5.4. Steps Required for Cost Attribution

Following the principle of cost causation, each item of cost will need to be attributed to the products and services provided by an operator. Each cost item may be considered to fall into one of the following categories.

5.4.1. Direct costs

There are relatively few direct costs in telecommunications networks. They are those costs that:

(i) Are only needed to provide a specific service or set of services;

(ii) Are recorded against the relevant product or service in the operator's accounting system; and

(iii) Can be directly and unambiguously identified to a product or service.

For example, interconnection payments to other operators are a direct cost of providing call services and can be identified with the services that give rise to them.

5.4.2. Directly attributable costs

Directly attributable costs are shared by a number of services but are still directly related to those services. Most network plant and equipment costs fall into this category. Examples include:

(i) The cost of exchange lines in a fixed network (links between distribution points and exchanges) is driven by the number of lines and their length. This cost can be attributed to different services such as retail line rentals, wholesale line rental (WLR) and LLU based on the numbers of lines, their length and the technology provided for each service.

(ii) The amount of switching equipment required and hence its costs are typically driven by the total volume of traffic using such equipment. For example, processor costs are driven by busy hour call attempts and port costs by busy hour call minutes. The costs can therefore be attributed to different services based on their respective shares of the traffic handled by the switching equipment.

(iii) Some aspects of a mobile network operator’s requirements for media gateways (MGW) are driven by the number of subscribers supported while

other aspects are driven by the volume of traffic in the busy hour (because mobile networks are sized in order to handle traffic at peak times). In calculating the directly attributable cost, the first step is to split costs into those which are subscriber-related and those which are call-related. The next step would be to split call costs into those corresponding to different call services. These attributions should be based on the average number of MGWs used per call (captured in a routing factor), the number of calls and the average duration of calls.

(iv) Transmission equipment costs are driven by the number of circuits, which in turn is driven by services such as calls, leased lines and backhaul. To attribute costs, information is required on the transmission capacity for all types of service conveyed, for example, in terms of 2 Mbit/s paths used for voice calls. Transmission equipment costs can then be attributed to calls using routing factors, the number of calls and call durations.

5.4.3. Indirectly attributable costs

Indirectly attributable costs are costs that can be indirectly related to a service or product based on the relationship these costs have to the direct and directly attributable costs explained above. For example:

(i) Records of how telecommunications engineers spend their time can be used to attribute maintenance costs to different types of network plant group and components, which in turn can be directly attributed to different services (see above).

(ii) Transport costs are partly driven by maintenance and other plant related activities and can thus be attributed in a similar way to these activities. In addition, transport costs will be incurred as a result of the activities of other functions such as marketing (since marketing managers may have company cars) or by high level staff costs.

(iii) Computing costs are typically driven by particular projects, which can then be related to certain activities. Meanwhile desktop computing costs are driven by the number of users.

(iv) Accommodation costs are partly driven by plant requirements and partly by the number of people in different activities, which in turn is partly driven by plant requirements.

5.4.4. Unattributable costs

Unattributable costs are those costs for which no direct or indirect method of attribution to services and products using cost drivers can be identified. Examples include costs relating to the CEO's office, investor relations, corporate relations and, to some extent at least, the regulatory department. The way such costs are normally apportioned to different services is to estimate their total value as a percentage of the costs that can be directly or indirectly attributed and then mark up the latter by that percentage.

Rigorous application of cost attribution methods explained above can be expected to reduce substantially the proportion of these costs that are unattributable.

5.5. Developing the Cost Attribution Process and Systems

Before costs can be attributed in a reliable manner, a substantial amount of information of both a financial and non-financial nature is required. This information is necessary to identify the usage of different types of equipment and other resources by different services. In order for operators to attribute costs reliably, it will be necessary for them to verify their existing surveys or to conduct new ones, and to have, amongst other things:

(i) A system of time recording (such as used in an ABC type system) or a survey approach. For example, to record time spent by engineers maintaining different types of network equipment;

(ii) Activity surveys in cases where employees spread their time over a number of different activities or services;

(iii) Information on pay costs;

(iv) Details of the deployment and use of different network plant groups and components by different services;

(v) Surveys for the fixed network, for example that identify where duct is used by the core network, where it is used by the access network and where it is shared by both networks;

(vi) Sample surveys of traffic, such as busy hour traffic to identify the volumes and routings of different types of traffic;

(vii) Comprehensive billing system information;

(viii) Engineering input on cost drivers for different network components;

(ix) Surveys of the use of buildings to identify the respective responsibilities of different types of equipment for network building costs and the responsibility of different departments for non-network building costs;

(x) Surveys of use of general computing and IT equipment;

Any surveys need to be updated regularly (ideally annually).

5.6. Cost Categories and Cost and Capital Employed Attribution for Fixed Operators

Appendices D.1 and D.2 contain tables that relate to fixed operators and which provide examples of cost drivers and methods of attributing operating costs and capital employed for the main types of cost. If operators have categories of cost that are not included here, they should add them to the list and identify appropriate cost drivers.

5.7. Cost Categories and Cost and Capital Employed Attribution for Mobile Operators

Appendices D.3 and D.4 contain tables that relate to mobile operators and which provide examples of cost drivers and methods of attributing operating costs and capital employed for the main types of cost. If operators have categories of cost that are not included here, they should add them to the list and identify appropriate cost drivers.

Finalisation of the cost classification, surveys and cost drivers will result from the activities of the Joint Working Group.

6. TRANSFER CHARGES

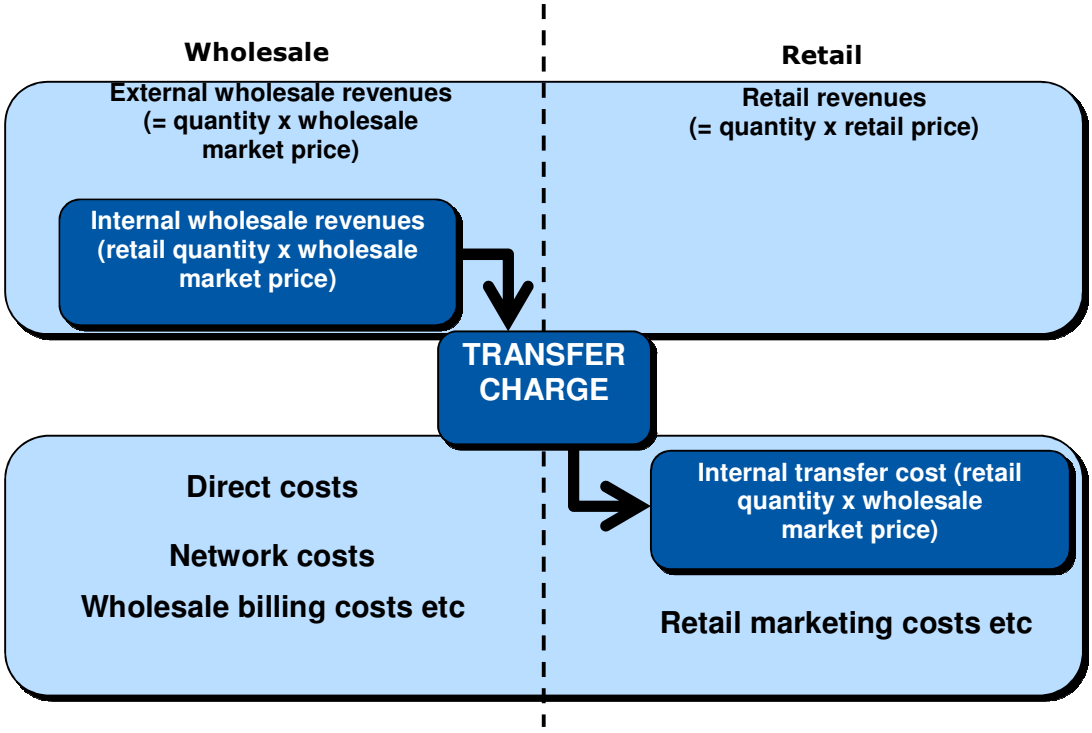
Each operator will need to account for services provided between its own divisions/entities "as if" these transactions were with external parties. This requires the use of transfer charges.

6.1. Transfers at Market Prices

In instances where a wholesale service is also being provided to an external party, there is a market price and, provided that the latter can be shown to be cost based, this should be used as the transfer charge.

The situation is illustrated in Figure 3 below, where external wholesale revenues are the payments made to the operator's wholesale business by the external party and internal wholesale revenues are the transfer charges received by the operator's wholesale business from its retail business unit. These same transfer charges are part of the costs of the retail business.

Figure 3: Transfer Charge at Market Prices

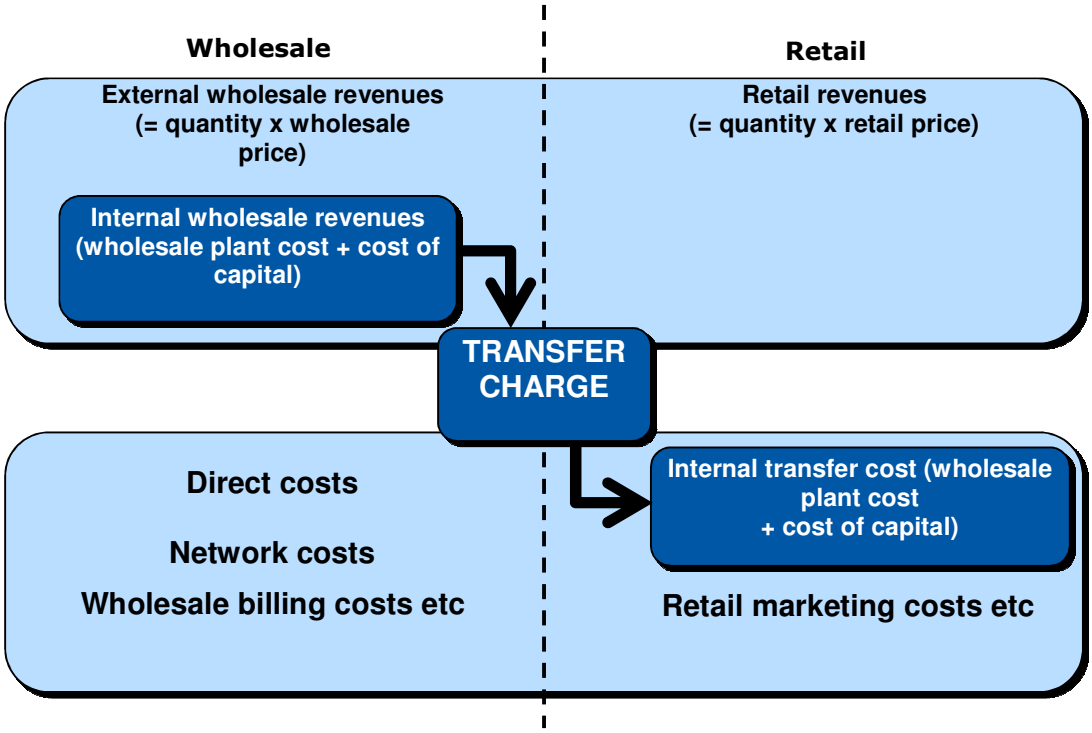


In instances where regulated rates are mandated for external sales (e.g. via MSAP), the transfer charges should be posted at regulated rates.

6.2. Transfers at Cost plus Cost of Capital

In instances where the wholesale service is not being provided to an external party and consequently there is no market price (or external wholesale revenue), or where the market price is not cost justified, the transfer charge should instead be calculated using wholesale costs for the service including the cost of capital (see Figure 4).

Figure 4: Transfer Charge at Cost plus Cost of Capital



6.3. Cost of Capital

When implementing AS, it is standard international practice to use the weighted average cost of capital (WACC). This reflects the opportunity cost of funds invested in a business, and should take into account the different sources of finance. This requires evaluation of:

(i) The costs of debt held by the operator, weighted to reflect holdings of different types of debt;

(ii) The cost of equity of the operator, measured in terms of the returns demanded by shareholders in light of the risks to the business; and

(iii) The relative holdings of debt and equity.

Based on this, (pre-tax nominal) WACC is calculated using the following formula:

$WACC = \left[(Rd) \times \left(D/V\right)\right] + \frac{1}{(1-Tc)}\left[(Rf + \beta(\mathrm{PR})) \times E/V\right]$, where:

Rd = Weighted Average Cost of Debt

Tc = Corporate Tax Rate

D = Total Debt

E = Total Equity

V = D + E = Total Capitalisation

β = Beta

Rf = Risk Free Rate

PR = (*Rm* - *Rf*) = Equity Risk Premium, where

Rm = Market Rate of Return

Given the difficulties and uncertainties that the calculation of divisional WACC would entail, operators should use company-wide WACC for the calculation of the cost of capital. However, the position could be revisited in the future if the techniques for determining divisional WACC become more reliable.

6.4. Demonstration of Transfer Charges

To ensure that the information in the RFS is relevant, reliable and transparent, it is essential that the basis and nature of the transfer charges is clearly set out in the accounting documentation (see Section 10.2). Further, the format of the RFS (see Section 7 and Appendices A and B) will separately show the internal and external revenues, costs and MCE of the individual products and services.

Finally, there should be consistency of treatment of transfer charges from year to year. Where changes occur, they should be transparent and by prior agreement with SKMM. Material changes in policies adopted and/or calculations may require reclassification of the prior year numbers, including closing MCE balances.

6.5. Fixed Network

Following the principles explained above, the wholesale Income Statement of a fixed network will include:

(i) External wholesale revenue generated as a result of sales to external wholesale customers (other telecommunications operators); and

(ii) Internal wholesale revenues in the form of transfer charges made to the parts of the business providing Retail and Other services.

The flipside of this is that the retail and other Income Statements will show internal transfer costs alongside other retail costs.

If a fixed operator does not have a beneficial ownership in a mobile operator, any transactions with mobile operators for the use of the network (interconnection) will be classified as external.

6.6. Mobile Networks

In a similar manner, the wholesale Income Statement for mobile networks will show internal and external revenues, and correspondingly the mobile network retail Income Statements will show internal and external costs. For example:

(i) A mobile network's wholesale business Income Statement will show external revenue from providing services to external customers (e.g. for interconnection) and internal revenue from providing services to its own retail businesses (voice, SMS and data).

(ii) The retail business Income Statement will record external revenue relating to the sale of post-paid and prepaid plans as well as other external sales and internal revenue for the recharge of the billing system.

Where a mobile operator also has a fixed network business and the scale of such activities is material, an internal transfer charging system between fixed and mobile markets would also need to be established.

7. FORMAT OF REGULATORY FINANCIAL STATEMENTS

7.1. Overview

The proposed format and content of the RFS for small operators are described in Appendix A and the RFS for large operators in Appendix B to these Guidelines.

The RFS for large, fixed network operators comprise:

(i) Income Statements at the level of individual wholesale and retail services and other services;

(ii) Statements of average unit cost and revenues at the level of individual wholesale and retail services;

(iii) Income Statements consolidated at the level of wholesale and retail showing aggregate wholesale and retail and other results;

(iv) A Statement of MCE for individual services at the retail and wholesale levels;

(v) A consolidated MCE statement;

(vi) Statements of network unit costs by service;

(vii) Network Activity Statements; and

(viii) Reconciliation Statements to the statutory accounts.

The RFS for large, mobile network operators comprise:

(i) Income Statements at the level of individual wholesale and retail services;

(ii) Statements of average unit cost and revenues at the level of individual wholesale and retail services;

(iii) A Consolidated Income Statement showing wholesale, retail, other and total;

(iv) A Statement of MCE for individual services at the retail and wholesale levels;

(v) A consolidated MCE statement;

(vi) Statements of network unit costs by service;

(vii) Network Activity Statements; and

(viii) Reconciliation Statements to the statutory accounts.

Additionally, large operators are required to provide a six monthly revenue analysis by products and services.

7.2. Requirements for Small Operators

SKMM has decided to provide a partial exemption from AS reporting requirements for companies whose revenue arising in Malaysia or total assets (or both) fall below RM3 billion. These "small operators" will, however, be required to produce abbreviated RFS, that is to say RFS showing income and net assets at a less granular level. In particular, these entities will be required to produce:

(i) Regulated income statements at the Wholesale, Retail and Total level only, on an HCA basis (seen Appendix A)

(ii) Net asset statements at the company year-end date at the Wholesale, Retail and Total level only, on an HCA basis (see Appendix A)

(iii) Reconciliation statement to the audited consolidated group financial statements (with no CCA adjustments required) (see Section 8)

(iv) A statement signed by a company director (i.e. self certification) confirming that the RFS are properly prepared in accordance with the submitted documentation and comply with regulatory obligations.

(v) Accounting documentation specifying accounting policies and attribution methods adopted.

In developing these requirements, SKMM has taken into account the size and simplicity of operations of the small operators. These provisions will apply if at least one of the two threshold criteria is met.

8. RECONCILIATION

8.1. Overview

In order to ensure the reliability of the RFS, and their consistency with the operators' statutory accounts, Reconciliation Statements are required. These Reconciliation Statements will need to be prepared by the operators to consolidate and reconcile all of the RFS for the individual products and services to the operators' audited statutory accounts.

The reconciliation process represents a fundamental step in enabling transparency of how the RFS outputs are aligned to the audited statutory accounts. Consequently, all the items that are disclosed in the statutory accounts, but not in the regulated accounts, require a separate disclosure. For those entities that fall below the "small company" thresholds, the reconciliation statement is simplified as it will exclude current cost adjustments.

For companies operating in a group structure, the reconciliation statements should be carried out to the companies audited group accounts.

8.2. Reconciliation Statements for Large Operators

Table 3 Reconciliation of Consolidated Income Statement (Large Operators)

	Revenue (RM)	**Operating costs (RM)**	**Operating profit (RM)**
As in the Annual Report	x	x	X
Adjustments			
Inter-market revenues and costs	x	x	X
Other operating income	x	x	X
Profit on disposal of property (if CCA basis)	x	x	X
Other gains	x	x	X
Total in RFS on HCA basis	x	x	X
CCA Holding gains/losses		x	X
CCA Supplementary depreciation		x	X
Other CCA adjustments		x	X
Total in RFS on CCA basis	**x**	**x**	**X**

Table 4 Reconciliation of Consolidated Mean Capital Employed (Large Operators)

	Current Year (RM)	**Prior Year (RM)**
Shareholders' funds as in the Annual Report	xx	Xx
CCA adjustments (if applicable)	xx	Xx
Adjustments		
Other long term liabilities	xx	Xx
Short term borrowings	xx	Xx
Taxation	xx	Xx
Assets held for speculative purposes	xx	Xx
Available for sale investments	xx	Xx
Derivative financial instruments	xx	Xx
Deferred tax assets/liability	xx	Xx
Financial assets at fair value	xx	Xx
Other as appropriate	xx	Xx
Closing capital employed at 31 December	xx	Xx
Opening capital employed at 1 January	xx	Xx
Average capital employed	xx	Xx
Total Mean Capital Employed	**xx**	**Xx**

8.3. Reconciliation Statements Small Operators

Table 5 Reconciliation of Consolidated Income Statement (Small Operators)

	Revenue (RM)	**Operating costs (RM)**	**Operating profit (RM)**
As in the Annual Report	x	x	X
Adjustments			
Inter-market revenues and costs	x	x	X
Other operating income	x	x	X
Other finance income	x	x	X
Other gains	x	x	X
Total in RFS on HCA basis	x	x	X

Table 6 Reconciliation of Net Asset Statement (Small Operators)

	Current Year (RM)	**Prior Year (RM)**
Net assets as in the Annual Report	xx	Xx
Adjustments		
Other long term liabilities	xx	Xx
Short term borrowings	xx	Xx
Taxation	xx	Xx
Assets held for speculative purposes	xx	Xx
Available for sale investments	xx	Xx
Derivative financial instruments	xx	Xx
Deferred tax assets/liability	xx	Xx
Financial assets at fair value	xx	Xx
Other as appropriate	xx	Xx
Total Net Assets as per RFS	**xx**	**Xx**

9. CURRENT COST ACCOUNTING METHODOLOGY

9.1. Overview of Asset Valuation Methods

It is necessary for large operators to establish a system of CCA so that regulatory financial statements on a CCA basis can be submitted to SKMM beginning 2015.

The detailed principles of CCA and illustrative examples of how it is implemented are set out in Appendix C to these Guidelines.

10. AUDIT AND DOCUMENTATION REQUIREMENTS

The responsibility for preparing RFS rests with the operators. In addition it will be necessary for the information to be audited and thoroughly documented.

The audit requirement, as specified below, does not apply to operators who fall below the large company threshold. Instead, these entities i.e. "small operators" are required to submit a Statement signed by a company director that confirms to SKMM that the accounts have been produced in accordance with the submitted documentation and comply with the regulatory obligations.

10.1. Overview of audit opinion for large operators

SKMM will need to be satisfied that the RFS are free from material errors and misrepresentations. In order to be able to have that comfort level, SKMM requires an audit opinion and this implies a duty of care to the regulator

SKMM sets out below the basic principles upon which the two different levels of audit opinion are based.

FPIA (Fairly Presents in Accordance with) provides comfort that the overall impression created by the financial statements "fairly presents" the underlying performance and financial position of the entity concerned. This level of audit opinion is the industry standard and is equivalent to what is required for statutory accounts.

On the other hand, PPIA (Properly Prepared in Accordance with) only provides assurance that the figures contained in the financial statements have been properly prepared in accordance with an agreed process, without any assurance that the overall impression which they convey represents the underlying performance and financial position in a "fair" manner. Therefore, it is usually only permitted where it would not be possible to implement FPIA or it would be disproportionate to do so. Reflecting this, the lower assurance, which a PPIA audit opinion provides, is less costly to obtain than a FPIA.

The audit opinion should cover whether the RFS:

(i) Fairly present information in accordance with the Accounting Separation guidelines which state the Principles of Accounting Separation, the attribution

method and accounting policies in arriving at Income and MCE of each market and product;

(ii) Complies with the regulatory obligations in place;

(iii) Contains all the information and documents specified as to be submitted by the regulatory obligations;

(iv) Are properly prepared in accordance with the relevant guidelines and procedures, as defined in the detailed documentation; and

(v) The restated and re-presented prior year Income and MCE Statements are fairly presented in accordance with this document.

SKMM has decided that:

- With respect to entitites that fall below the "small company" threshold self certification signed by a company director will be required.
- For companies that do not fall below the "small company" threshold, a Compliance Statement signed by the company auditors will be sufficient for the first two years of implementation of AS.
- FPIA opinion will be required as standard from the third year of implementation of AS and a Compliance Statement will only be used when the auditors are unable to provide a standard opinion or where standard opinion would clearly be disproportionate. The use of a Compliance Statement for a particular report will need to be agreed with the Regulator.
- Operators will be free to determine who audits their RFS, so the use of statutory auditors is not precluded.

10.2. Documentation

Alongside the RFS themselves, it will be necessary for the operators to provide a full documentary record of the framework and methods used in their preparation. This documentation should comprise:

(i) A statement of the Accounting Separation Principles followed

(ii) A statement of the Accounting Policies used, in accordance with Section 3 above and Appendix E, and noting, where necessary, any changes in the policies over time.

(iii) An explanation of the cost attribution methods used and the principal cost drivers, following the guidance set out in Section 5 and Appendix D.

(iv) An explanation of the nature and calculation of the transfer charges, in accordance with what is described in Section 6.

(v) A full list of all codes and definitions used for:

- Products and services;
- Account codes;
- Activity codes;
- Cost centres and functions; and
- Data sources.

Documentation supporting the RFS needs to be of good quality.

The necessary level of documentation is also linked to the audit requirements, with aspects of the costing process having to be reviewed "in accordance with the documentation".

Retention of records should be the same as for current statuory purposes. The working group would confirm the scope and level of detail required.

Operators will need to submit their documentation to SKMM for review, in accordance with the Implementation Timescale set out in Section 11.

10.3. Maintenance of accounting records and responsibilities

In addition to the required documentation, it is essential that operators maintain appropriate accounting records. The accounting and non-financial records have to be sufficient to provide relevant, comparable and reliable information, and key requirements include:

(i) A sufficient level of detail to allow verification of the RFS;

(ii) Sources of information, particularly non-financial data used in cost attribution;

(iii) Definitions of all services and products;

(iv) The "mapping of services" onto network plant groups and components, demonstrating how the services use the network;

(v) Network engineering information used for developing cost drivers;

(vi) The on-going availability of staff and information to support queries from SKMM;

(vii) The appropriate retention of information.

Ultimate responsibility for the keeping of proper records, the preparation of the RFS, and the reliability of the information contained in them lies with the directors of the relevant companies.

The principal accounting recording system will normally be the operator's general ledger. It will be possible for operators, in due course, to develop additional management accounting features, such as cost allocation and ABC, which would provide many of the tools for AS processing and record keeping.

Within the general ledger, the core feature is the accounts code or chart of accounts which typically contains two key dimensions, namely the type of account, or natural expense, such as payroll and the cost centre. The latter normally relates to a broad function activity such as marketing. SKMM envisages that a matrix of cost types and costs by function would form the basic financial building block for cost analysis purposes.

The main accounting record for premises and network plant would be the Fixed Asset Register.

In a number of cases, operators appear to use Enterprise Resource Planning (ERP) systems which contain modules such as Financial Accounting or Controlling. The financial modules can typically work in conjunction with other modules such as Human Resources or Customer Relationship Management.

Given that these ERP modules or systems bring together financial and non financial information, both for internal and external purposes, in due course these modules could contain many of the necessary records for non financial information for the costing process and a more integrated approach to data collection and use would be possible.

In the first year of preparing results, and possibly beyond, it may be practical to develop the cost apportionment process using a series of spreadsheets, with supporting documentation. This may be helpful in terms of the overall learning process, as new methods are being introduced, and would not to be over prescriptive.

11. IMPLEMENTATION PLAN

11.1. Implementation Timetable

Table 7 AS Implementation Timetable

Date	Actions	
	SKMM	**Operator**
Nov 2012	Issue decision on AS	
Dec 2012	Prepare AS Guidelines and send out letters to operators to Implement AS	
Dec 2012		Begin the on-going task of data gathering.
Feb 2013	Monitor progress by reviewing the implementation plan, and advising the operators of any shortcomings	Submit documentation explaining the operator's own implementation plan
Jun 2013	Monitor progress by reviewing the revenue reports and documentation in comparison to the contents of the PI Paper, and advising the operators of any shortcomings	Produce first set of 6 monthly separated revenue reports together with documentation explaining the principles and details of methodology used
Sep 2013	Monitor progress by reviewing the documentation in comparison to the contents of the PI Paper, and advising the operators of any shortcomings	Complete collection of data on network cost drivers and submit document summarising the cost drivers used and explaining attribution methodology for network costs.
Dec 2013	Monitor progress by reviewing the documentation in comparison to the contents of the PI Paper, and advising the operators of any shortcomings	Complete collection of data on non-network cost drivers and submit document summarising the cost drivers used and explaining attribution methodology for non-network costs.
Jun 2014	Monitor progress by reviewing RFS	Submit 2013 draft HCA RFS
Sep 2014	Monitor progress by reviewing RFS	Formally submit 2013 final HCA RFS
Dec 2014		Begin the on-going task of data gathering for CCA asset revaluation
Mar 2015	Monitor progress by reviewing the CCA documentation in comparison to the contents of the PI Paper, and advising the operators of any shortcomings	Submit documentation explaining the operator's implementation plan for CCA RFS and the principles and the details of the methodologies to be used to revalue assets and calculate depreciation and holding gains/losses
Jun 2015	Monitor progress by reviewing RFS	Submit 2014 draft HCA RFS
Sep 2015	Monitor progress by reviewing RFS	Formally Submit 2014 final HCA RFS
Jun 2016	Monitor progress by reviewing RFS	Submit draft 2015 CCA RFS
Sep 2016	Monitor progress by reviewing RFS	Formally submit 2015 final CCA RFS

The above timelines are for companies with financial year ending 31 Dec. For companies whose financial year ends at 31 March the filing dates will be 3 months later than those shown and for those whose financial year ends at 30 June the filing dates will be 6 months later than those shown.

The timetable above summarises what was set out in the PI Report. Draft and final CCA RFS will also need to be submitted in June and September respectively of each year subsequent to 2016.

11.2. Joint working group

In implementing AS it is necessary to strike a balance between requiring each operator to use exactly the same set of prescribed account codes, and allowing them the flexibility to develop their own systems. Given the different starting positions of the operators, SKMM believes it would be better to avoid an overly prescriptive approach.

However, in order to ensure that the same AS principles are applied in a consistent and transparent manner, SKMM will establish a joint industry working group, meeting on a regular basis and intends to chair the proceedings and make the necessary arrangements.

It is anticipated that the joint industry working group will meet at regular intervals throughout 2013 and in 2014 to discuss and resolve issues.

Operators will also be required to submit a monthly written report on the progress of AS implementation, issues and challenges to SKMM, prior to the joint working group meetings.

APPENDIX A: FORMAT OF ACCOUNTS FOR SMALL OPERATORS

A.1 Small Operator Wholesale Income Statement

The format for the consolidated wholesale Income Statement that small operators need to produce is shown below.

Table 8 Small operator Wholesale Income Statement

		Current year (RM)	**Prior year (RM)**
Income	External charges to other operators	X	x
	Internal charges to retail	x	x
	Internal charges to other business units	X	x
	Total income	**X**	**x**
Operating Costs	Operating costs	X	x
	Depreciation	X	x
	Transfer charges from retail	x	x
	Transfer charges from other business units	X	x
	Other adjustments	X	x
	Total operating costs		
Operating return		X	x
Net Assets		X	
% return on Net Assets		%	%
% return on turnover		%	%

A.2 Small Operator Retail Income Statement

Small operators are also required to produce a consolidated retail Income Statement. The format for this is shown in Table 9.

Table 9 Small Operator Retail Income Statement

		Current year (RM)	**Prior year (RM)**
Income	External charges to other operators	X	x
	Internal charges to wholesale	x	x
	Internal charges to other business units	X	x
	Total income	**X**	**x**
Operating Costs	Operating costs	X	x
	Depreciation	X	x
	Transfer charges from wholesale	x	x
	Transfer charges from other business units	X	x
	Other adjustments	X	x
	Total operating costs		
Operating return		X	x
Net Assets		X	
% return on Net Assets		%	%

A.3 Small Operator Other Business Income Statement

The format for the consolidated other business Income Statement that small operators need to produce is shown below.

Table 10 Small Operator Other Business Income Statement

		Current year (RM)	**Prior year (RM)**
Income	External charges to other operators	X	x
	Internal charges to wholesale	x	x
	Internal charges to retail	X	x
	Total income	**X**	**x**
Operating Costs	Operating costs	X	x
	Depreciation	X	x
	Internal charge from wholesale	x	x
	Transfer charges from retail	X	x
	Other adjustments	X	x
	Total operating costs		
Operating return		X	x
Net Assets		X	
% return on Net Assets		%	%

A.4 Small Operator Net Asset Statement

The format for the Net Asset Statement that small operators need to produce is shown below.

Table 11 Small Operator Net Asset Statement
Year Ended ….201x

	Total wholesale	**Total retail**	Residual/Other business	**Total**
Non-current assets				
Tangible fixed assets				
Other				
Investments				
Total Non-current Assets				
Current Assets				
Stocks				
Debtors				
- Internal				
- External				
Total Current Assets				
Liabilities falling due within one year				
- Internal				
- External				
Total Liabilities falling due within one year				
Net Current Assets/Liabilities				
Total Assets less Current Liabilities				
Provisions for liabilities and charges				
Net Assets				

APPENDIX B: FORMAT OF ACCOUNTS FOR LARGE OPERATORS

B.1 Fixed Operators

B.1.1 Wholesale Service Income Statements

For each of the wholesale services identified in Section 2.2, the Income Statement should have the format shown in Table 12.

Table 12:

Fixed: Wholesale Income Statement Format for Each Service

		Current year (RM)	**Prior year (RM)**
Income	External charges to other operators	X	x
	Internal charges to retail	X	x
	Internal charges to other business	X	x
	Total wholesale income	**X**	**x**
Operating Costs	Operating costs	X	x
	Depreciation	X	x
	Transfer charges from retail	X	x
	Holding (gain)/loss[3]	x/(x)	x/(x)
	Supplementary depreciation	X	x
	Other adjustments	X	x
	Total operating CCA costs		
Operating return		X	x

[3] Holding gains/losses can be presented on a gross basis where they are calculated as closing GRC minus opening GRC, or on a net basis where they are calculated as closing GRC minus opening GRC minus backlog depreciation. We recommend that holding gains or losses are shown on a net basis. Alternatively holding gains or losses can be shown on a gross basis, and backlog depreciation included in "other adjustments".

	Current year (RM)	Prior year (RM)
Mean capital employed	X	
% return on Mean Capital Employed	%	%
% return on turnover	%	%

The corresponding statements of average unit revenue and unit costs for each wholesale service should be formatted as shown in Table 13.

Table 13

Fixed: Wholesale Average Unit Revenue and Cost Statement for Each Service

Total revenue	xxx
External revenue	xxx
External volume	xxx
Average external unit revenue	xxx
Internal revenue	xxx
Internal volume	xxx
Average internal unit revenue	xxx
Total costs	xxx
Average unit FAC	xxx
Margin	xxx
Margin %	xxx

B.1.2 Consolidated Wholesale Income Statement

The wholesale Income Statements for the individual wholesale services in the previous section should also be aggregated into a consolidated wholesale Income Statement, as shown in Table 14 below, summarising wholesale total market results.

Table 14

Fixed: Consolidated Wholesale Income Statement by Service

	Exchange lines	Wholesale local access- copper	Wholesale local access- fibre	Wholesale Broadband access	Wholesale Leased lines	Backhaul Services	Call origination	Call termination	Transit services	Interconnection circuits	Other	TOTAL WHOLESAEL
Revenue												
External from other operators												
Internal charges to retail												
Internal charges to other business												
Total wholesale revenue												
Operating costs												
Operating costs												
Depreciation												
Transfer charges from retail												
Other costs												
Total HC operating costs												
Holding (gains)/losses[4]												
Supplementary depreciation												
Other adjustments												
Total Net CCA adjustments												
Total operating CCA costs												
Operating return												
Mean Capital Employed												
% return on Mean Capital Employed												
% return on turnover												

[4] See Footnote 3

B.1.3. Retail Service Income Statements

For each of the retail services identified in Section 2 the Income Statement should have the format shown in Table 15. The example shown is for when CCA is used. In the case of HCA there will be no entries for holding gains/losses, supplementary depreciation or other CCA adjustments.

Table 15

Fixed: Retail Income Statement Format for Each Service

		Current year (RM)	**Prior year (RM)**
Income	External charges	x	x
	Internal charges to wholesale	x	x
	Other	**x**	**x**
	Total income	x	x
Operating Costs	Operating costs	x	x
	Depreciation charges	x	x
	Transfer charges from wholesale	x	x
	Holding (gain)/loss[5]	x/(x)	x/(x)
	Supplementary depreciation	x	x
	Other adjustments	x	x
	Total operating CCA costs		
Operating return		x	x
Mean capital employed		x	
% return on Mean Capital Employed		%	%
% return on turnover		%	%

[5] See Footnote 3

The corresponding statements of average revenue and unit costs for each retail service should be formatted as shown in Table 16.

Table 16

Fixed: Retail Average Unit Revenue and Cost Statement

Total revenue	xxx
Volume	xxx
Average unit revenue	xxx
Total costs	xxx
Average unit FAC	xxx
Margin	xxx
Margin %	xxx

B.1.4 Consolidated Retail Income Statement

The Retail Income Statements for the individual retail services in the previous section should be aggregated into a consolidated retail Income Statement, as shown in Table 17 below, summarising retail total market results

Table 17
Fixed: Consolidated Retail Income Statement by Service

	Exchange lines residential	Exchange lines business	Total exchange liens	Local calls	National calls	International calls	Calls to mobiles	Leased lines	Broadband	Other	TOTAL RETAIL
Revenue											
External from other operators											
Internal charges to wholesale											
Internal charges to other business											
Total wholesale revenue											
Operating costs											
Operating costs											
Depreciation											
Transfer charges from retail											
Other costs											
Total HC operating costs											
Holding (gain)/loss[6]											
Supplementary depreciation											
Other adjustments											
Total Net CCA adjustments											
Total operating CCA costs											
Operating return											
Mean Capital Employed											
% return on Mean Capital Employed											
% return on turnover											

6 See Footnote 3

B.1.5 Wholesale Mean Capital Employed by Service

A statement should be provided showing the breakdown of MCE for each wholesale service. The format is shown in Table 18.

B.1.6 Retail Mean Capital Employed by Service

Similarly, a statement should be provided of the breakdown of MCE for each retail service. The format is shown in Table 19.

Table 18
Fixed: Wholesale Mean Capital Employed by Service

	Exchange lines	Wholesale local access-copper	Wholesale local access-fibre	Wholesale Broadband access	Wholesale Leased lines	Backhaul Services	Call origination	Call termination	Transit Services	Inter connection circuits	Other
Non-current assets											
Tangible fixed assets											
Land & Buildings											
Access-Copper											
Access-Fibre											
Access-Duct											
Switch and Transmission - Switch											
- Transmission											
Other											
Investments											
Total Non-current Assets											
Current Assets											
Stocks											
Debtors - Internal - External											
Total Current Assets											
Liabilities falling due within one year - Internal - External											
Total Liabilities falling due within one year											
Net Current Assets/Liabilities											
Total Assets less Current Liabilities											
Provisions for liabilities and charges											
Rounding											
Mean capital employed											

Table 19
Fixed: Retail Mean Capital Employed by Service

	Exchange lines residential	Exchange lines business	Total exchange liens	Local calls	National calls	International calls	Calls to mobiles	Leased lines	Broadband	Other
Non-current assets										
Tangible fixed assets										
Land & Buildings										
Access-Copper										
Access-Fibre										
Access-Duct										
Switch and Transmission - Switch										
- Transmission										
Other										
Investments										
Total Non-current Assets										
Current Assets										
Stocks										
Debtors - Internal - External										
Total Current Assets										
Liabilities falling due within one year - Internal - External										
Total Liabilities falling due within one year										
Net Current Assets/Liabilities										
Total Assets less Current Liabilities										
Provisions for liabilities and charges										
Rounding										
Mean capital employed										

B.1.7 Consolidated Mean Capital Employed

Wholesale, retail and other MCE should be consolidated using the format shown in Table 20 below.

Table 20
Fixed: Consolidated Mean Capital Employed

		Current year (RM)
Wholesale	Wholesale exchange lines	X
	Wholesale local access - copper	X
	Wholesale local access - fibre	X
	Wholesale broadband access	X
	Wholesale leased lines	X
	Backhaul services	X
	Call origination	X
	Call termination	X
	Transit services	X
	Interconnection circuits	X
	Other	X
	Total wholesale	X
Retail	Retail exchange lines - residential	X
	Retail exchange lines - business	X
	Local calls	X
	National calls	X
	International calls	X
	Calls to mobiles	X
	Leased lines	X
	Broadband	X
	Other	X
	Total retail	X
Other	Global	X
	Value added services	X
	Other residual	X
Total separated accounts		X
Adjustments		x/(x)
Statutory accounts		X

B.1.8 Other Business Income Statement Format

For any other business, the Income Statement should have the format shown in in Table 21 below. The example shown is for when CCA is used. In the case of HCA there will be no entries for holding gains/losses, supplementary depreciation or other CCA adjustments.

Table 21

Fixed: Other Business Income Statement

		Current year (RM)	**Prior year (RM)**
Income	External charges	x	x
	Internal charges to wholesale	x	x
	Other	**x**	**x**
	Total income	x	x
Operating Costs	Operating costs	x	x
	Depreciation charges	x	x
	Transfer charges from wholesale	x	x
	Holding (gain)/loss[7]	x/(x)	x/(x)
	Supplementary depreciation	x	x
	Other adjustments	x	x
	Total operating CCA costs		
Operating return		x	x
Mean capital employed		x	
% return on Mean Capital Employed		%	%
% return on turnover		%	%

[7] See Footnote 3.

B.1.9 Network Unit Cost by Service

In order to demonstrate that transfer charges are cost-based and non-discriminatory, it is necessary to show how network unit costs are calculated. The first step is to calculate average unit costs for each network component, as shown in Table 22 below. Not all network components are shown, but these lists should be completed by the operators. For each service, network unit costs (Table 24) are then calculated as the sum product of component average unit costs (Table 22) and routing factors (Table 23) where the latter are the average number of units of each network element used by a particular service.

Table 22

Fixed: Network Element Unit Cost Statement

	Operating costs	Mean Capital Employed	Rate of return (%)	Capital costs	Operating and capital costs	Volume	Average unit cost
Components							
Local switching							
Core switching/routing							
Etc							
Traffic sensitive transmission							
etc							
Totals							

Table 23
Fixed: Service Routing Factors

	Local switching	Core switching/ routing	etc		Traffic sensitive transmission	etc	
Component average unit cost (Table 22)							
Service routing factors:							
Wholesale exchange lines							
Wholesale local access - copper							
Wholesale local access - fibre							
Wholesale broadband access							
Wholesale leased lines							
Backhaul services							
Call origination							
Call termination							
Transit services							
Interconnection circuits							
Other							
Retail exchange lines - residential							
Retail exchange lines - business							
Local calls							
National calls							
International calls							
Calls to mobiles							
Leased lines							
Broadband							
Other							

Table 24
Fixed: Network Unit Costs by Service

	Local switching	Core switching/ routing	etc		Traffic sensitive transmission	etc		Total
Wholesale exchange lines								
Wholesale local access - copper								
Wholesale local access - fibre								
Wholesale broadband access								
Wholesale leased lines								
Backhaul services								
Call origination								
Call termination								
Transit services								
Interconnection circuits								
Other								
Retail exchange lines - residential								
Retail exchange lines - business								
Local calls								
National calls								
International calls								
Calls to mobiles								
Leased lines								
Broadband								
Other								

B.1.10 Statement of Costs on a Current Cost Basis: Network Activity Statement

When costs are stated on a CCA basis, the Network Element Unit Cost Statement (see Table 22) should be augmented to show the CCA adjustments and supplementary depreciation. This is often referred to as a Network Activity Statement (see Table 25).

Table 25

Fixed: Network Activity Statement

	HCA operating cost	Supplementary depreciation	Holding gains and other CCA adjustments	Total CCA operating costs	CCA Mean Capital Employed	Applicable rate of return on capital %	Capital costs	Total of operating costs and capital costs relating to current year	Volume	Average costs per unit on a current cost basis relating to current year
Components										
Local switching										
Core										
Etc										
Traffic sensitive transmission										
etc										
Totals				Note 1	Note 2	Note 3				

Notes: 1. Total as per wholesale market income statement, 2. Total as per wholesale MCE, 3. Applicable rate is usually previous year's rate of return on MCE for the wholesale business.

B.2 Mobile Network

B.2.1 Wholesale Service Income Statements

For each of the wholesale services identified in Section 2.3, the Income Statement should have the format shown in Table 26. In the case of HCA, there will be no entries for holding gains/losses, supplementary depreciation or other CCA adjustments.

Table 26

Mobile: Wholesale Income Statement

		Current year (RM)	**Prior year (RM)**
Income	External charges to other operators	x	x
	Internal charges to retail	x	x
	Internal charges to other business	**x**	**x**
	Total wholesale income	x	x
Operating Costs	Operating costs	x	x
	Depreciation	x	x
	Transfer charges from retail	x	x
	Holding (gain)/loss[8]	x/(x)	x/(x)
	Supplementary depreciation	x	x
	Other adjustments	x	x
	Total operating CCA costs		
	Operating return	x	x
Mean capital employed		x	
% return on Mean Capital Employed		%	%
% return on turnover		%	%

The corresponding statements of average unit costs for each wholesale service should be formatted as shown in Table 27.

Table 27

Mobile: Wholesale Average Unit Revenue and Cost Statement

Total revenue	xxx
External revenue	xxx
External volume	xxx
Average external unit revenue	xxx
Internal revenue	xxx
Internal volume	xxx
Average internal unit revenue	xxx
Total costs	xxx
Average unit FAC	xxx
Margin	xxx
Margin %	xxx

B.2.2. Retail Service Income Statements

For each of the retail services identified in Section 3.3, the Income Statement should have the format shown in Table 28. In the case of HCA, there will be no entries for holding gains/losses, supplementary depreciation or other CCA adjustments.

Table 28

Mobile: Retail Income Statement

		Current year (RM)	**Prior year (RM)**
Income	External charges	x	x
	Internal charges to wholesale	x	x
	Other	**x**	**x**
	Total income	x	x
Operating Costs	Operating costs	x	x
	Depreciation charges	x	x
	Transfer charges from wholesale	x	x
	Holding (gain)/loss[9]	x/(x)	x/(x)
	Supplementary depreciation	x	x
	Other adjustments	x	x
	Total operating CCA costs		
	Operating return	x	x
Mean capital employed		x	
% return on Mean Capital Employed		%	%
% return on turnover		%	%

The corresponding statements of average unit revenue and costs for each retail service should be formatted as shown in Table 29.

Table 29

Mobile: Retail Average Unit Revenue and Cost Statement

Total revenue	xxx
Volume	xxx
Average unit revenue	xxx
Total costs	xxx
Average unit FAC	xxx
Margin	xxx
Margin %	xxx

B.2.3 Consolidated Income Statement

The retail and wholesale Income Statements for the individual services should be aggregated into a consolidated Income Statement, as shown in Table 30 below. In the case of HCA, there will be no entries for holding gains/losses, supplementary depreciation or other CCA adjustments.

Table 30

Mobile: Consolidated Income Statement by Service

	Call origination	Call termination	MVNO access	National roaming	International roaming	RAN Sharing	Backhaul Services	Other	**Total wholesale**	Connections and rentals	Voice	SMS	Data	International roaming	Other	**Total retail**	Residual/Other business	**TOTAL**
Revenue																		
External from other operators																		
Internal charges to retail/wholesale																		
Internal charges to other business																		
Total wholesale revenue																		
Operating costs																		
Operating costs																		
Depreciation																		
Transfer charges from retail																		
Other costs																		
Total HC operating costs																		
Holding (gains)/losses[10]																		
Supplementary depreciation																		
Other adjustments																		
Total Net CCA adjustments																		
Total operating CCA costs																		
Operating return																		
Mean Capital Employed																		
% return on Mean Capital Employed																		
% return on turnover																		

B.2.4 Mean Capital Employed by Service (Wholesale and Retail)

MCE for wholesale and retail services should be broken down by service as shown in Table 31below.

Table 31

Mobile: Mean Capital Employed by Service

	Call origination	Call termination	MVNO access	National roaming	International roaming	RAN Sharing	Backhaul Services	Other	**Total wholesale**	Connections and rentals	Voice	SMS	Data	International roaming	Other	**Total retail**	Residual/Other business	**Total**
Non-current assets																		
Tangible fixed assets																		
Land & Buildings																		
Access-Copper																		
Access-Fibre																		
Access-Duct																		
Switch and Transmission - Switch																		
- Transmission																		
Other																		
Investments																		
Total Non-current Assets																		
Current Assets																		
Stocks																		
Debtors																		
- Internal																		
- External																		
Total Current Assets																		
Liabilities falling due within one year																		
- Internal																		
- External																		
Total Liabilities falling due within one year																		
Net Current Assets/ Liabilities																		
Total Assets less Current Liabilities																		
Provisions for liabilities and charges																		
Rounding																		
Mean capital employed																		

B.2.5 Consolidated Mean Capital Employed

Consolidated MCE should be broken down as shown in Table 32 below.

Table 32
Mobile: Consolidated Mean Capital Employed

		Current year (RM)
Wholesale	Call origination	X
	Call termination	X
	MVNO access	X
	National roaming	X
	International roaming	X
	RAN Sharing	x
	Backhaul Services	x
	Other	X
Retail	Connections and rentals	X
	Voice	X
	SMS	X
	Data	X
	International roaming	X
	Other	X
	Total retail	X
Other	Global	X
	Value added services	X
	Other residual	X
Total separated accounts		x
Adjustments		x/(x)
Statutory accounts		X

B.2.6 Network Unit Cost by Service

In order to compare internal and external transactions and hence demonstrate that transfer charges are cost-based and non-discriminatory, it is necessary to show how unit costs are calculated.

The first step is to calculate average unit costs for each network component, as shown in Table 33 below. For the purposes of exposition, not all network components are shown, but these lists should be completed by the operators.

Combining network element unit costs with service routing factors (Table 34) produces network unit costs by service (Table 35). These statements can be produced in connection with both HCA and CCA RFS.

Table 33
Mobile: Network Element Unit Cost Statement

	Operating costs	Mean Capital Employed	Rate of return (%)	Capital costs	Operating and capital costs	Volume	Average unit cost
Components							
BTS/Node B							
BSC/RNC							
Etc							
Traffic sensitive transmission							
etc							
Totals							

Routing factors specify the average number of units of each network component used by a particular type of service and should be provided as in Table 34.

Table 34

Mobile: Network Routing Factors

	BTS/Node B	BSC/RNC	etc		Traffic sensitive transmission	etc	
Component average unit							
Service routing factors:							
Call origination							
Call termination							
MVNO access							
National roaming							
International roaming							
RAN Sharing							
Backhaul Services							
Other wholesale							
Connections and rentals							
Voice							
SMS							
Data							
International roaming							
Other retail							

Using the network element unit costs and the routing factors provided in the two tables above, the operators can then derive the unit network cost of different services, as shown in Table 35 below. For each service, this is calculated as the sum product of network component average unit costs (Table 33) and routing factors from Table 34.

Table 35

Mobile: Network Unit Costs by Service

	BTS/Node B	BSC/RNC	etc		Traffic sensitive transmission	etc	
Call origination							
Call termination							
MVNO access							
National roaming							
International roaming							
RAN Sharing							
Backhaul Services							
Other wholesale							
Connections and rentals							
Voice							
SMS							
Data							
International roaming							
Other retail							

B.2.7 Statement of Costs on a Current Cost Basis: Network Activity Statement

As for fixed operators, when costs are stated on a CCA basis, the Network Element Unit Cost Statement (see Table 33) should be augmented to show the CCA adjustments and supplementary depreciation. This results in a Network Activity Statement (see Table 36).

Table 36

Mobile: Network Activity Statement

	HCA operating cost	Supplementary depreciation	Holding gain and other CCA adjustments	Total CCA operating costs	CCA Mean Capital Employed	Applicable rate of return on capital %	Capital costs	Total of operating costs and capital costs relating to current year	Volume	Average costs per unit on a current cost basis relating to current year
Components										
BTS/Node B										
BSC/RNC										
Etc										
…										
Totals				Note 1	Note 2	Note 3				

Notes: 1. Total as per wholesale market income statement, 2. Total as per wholesale MCE, 3. Applicable rate is usually previous year's rate of return on MCE for the wholesale business.

APPENDIX C: CALCULATION OF CURRENT COSTS

C.1 Historical Costs

The historic and current cost valuations of an asset will be the same if there has been no change in the price of the asset since its purchase. This means that the use of historical cost valuation is often appropriate when the asset has a short life and/or a short residual life. Also, if the asset concerned only accounts for a small percentage of the company's total asset base, then any difference between historic and current costs will have little impact.

In either of these cases there is no need to revalue the asset and the historic costs may be used.

C.1.1 Example of historical cost valuation

The use of a historical cost valuation can be used to value capital work in progress (CWIP). Since the year-end balance of historical expenditure broadly reflects current price levels, no further current cost adjustment is necessary.

C.1.2 Assets to be valued using historical costs

The historical cost valuation of assets other than the example of CWIP given above is possible, but will depend on the circumstances of the individual operators and the materiality of the items, as explained above.

C.2 Absolute valuation

Absolute valuation is used to revalue assets when information on the prices and quantities of network equipment is available. Two variations on the methodology can be identified and the choice between them depends on whether or not there has been technological progress between the time of the purchase of the original asset and when it is revalued.

The two methodologies and examples of their use are explained in the following sub-sections and it is important to keep in mind that the aim of both is to reflect as closely as possible the prices available to Malaysian operators. As a result, the prices used in the calculations should include an allowance for any discounts that operators receive against the list prices of the assets. In addition, if operators have framework contracts with a network equipment vendor or any other supplier, then the prices under this agreement

should be used, because they will reflect the costs that would be incurred if that operator were to actually replace its assets.

If the asset being valued has not been subject to technological change since its purchase date, then if it were to be replaced today it would be replaced by an identical asset. However, the price of this asset may have changed over time (including as a result of the availability and size of any discounts against list prices available to the operator making the valuation).

C.2.1. Example of absolute valuation using existing assets

Since valuation using the current price of existing assets is appropriate when no technological progress has occurred it should be used for long lived assets that are unaffected by technological change such as ducts and radio masts. Absolute valuation using existing asset prices may also be appropriate for vehicles with reasonably long asset lives, as shown in the example below.

From their Fixed Asset Registers (FAR), the operators should have accurate figures on the numbers of the different types of vehicles they operate but for this example we assume 100 vehicles of the same vintage. For the purposes of this illustrative example, it is assumed that the asset life for vehicles is 5 years and that the age of the vehicles considered in this example is 3 years. It is further assumed that the price of a vehicle has fallen by RM 10,000 since the existing vintage of vehicles was purchased. This lower price could, for example, be due to the list price of vehicles falling over time, or because the operator has negotiated a discount of RM 10,000 per vehicle with its supplier.

The process used to calculate the net replacement cost (NRC) from the gross book value (GBV) of the existing asset is shown in Table 37 and the steps are explained below the table.

Table 37

Calculation of NRC from GBV

	Amount (RM)
GBV of each existing vehicle	150,000
Accumulated depreciation	90,000
NBV of each existing vehicle	60,000
Price of a new asset (GRC)	140,000
CCA depreciation c/f	84,000
NRC of each existing vehicle (GRC-CCA)	56,000
NBV of all such vehicles	6,000,000
NRC of all such vehicles	5,600,000

Source: NERA

Using straight line depreciation over the 5 year asset life, vehicles of this vintage will each have accumulated depreciation of RM 90,000. This is calculated as 3/5 of the historic cost because the average vehicle is 3 years old and vehicles are assumed to have an asset life of 5 years. When the accumulated depreciation is subtracted from the GBV, this leaves an NBV of RM 60,000 for each vehicle.

The price of a new vehicle at the time of revaluation is RM 140,000 and this is the gross replacement cost (GRC) of the vehicle. As before, three years of accumulated depreciation are taken into account to leave an NRC for a vehicle of RM 56,000. Since this result is for a single vehicle, we multiply by 100 to calculate the NRC of the cohort of 100 vehicles, which is RM 5,600,000.

C.2.2 Assets to be valued with absolute valuation using existing assets

Examples of the types of assets that may be revalued using absolute valuation are:

(i) Duct

(ii) Towers

(iii) Copper and fibre

(iv) Vehicles

C.3 Modern Equivalent Asset valuation

The use of a "modern equivalent asset" (MEA) valuation may be necessary when:

(i) The existing asset is no longer available from equipment suppliers; or

(ii) Technological progress has rendered the existing asset obsolete.

In the first of these cases there will be no price data available for the existing asset. In the second case, a new entrant operator would not deploy a network using obsolete equipment, so this methodology will not provide a true reflection of the costs of replacing the existing network. In both cases MEA prices should be used when valuing the asset.

MEAs should be chosen such that they have similar service potential to the existing asset, because their prices act as a proxy for the replacement cost of the existing asset. However, there may nevertheless be differences in the features, functionality, capacity, quality, operating costs, asset lives or space requirements of the MEA compared to the existing asset. It is important that such differences should be taken into account when valuing the existing asset.

In cases where the MEA is superior to the existing asset in terms of features, functionality, capacity or quality, this should be accounted for by estimating the value of the difference and subtracting this value from the estimate of the current value of the MEA. Differences in operating costs may arise from differences in maintenance, network management or associated indirect costs and should similarly be discounted. The MEA should be chosen on the basis of the asset with the required capacity and functionality, which, summing over the asset life has the lowest net replacement cost. In doing this, any differences in asset lives should be considered.

Where there is surplus capacity, i.e. capacity that is not currently required and is not expected to be required within the network planning horizon, valuations should be adjusted downwards. This is not only the case for network traffic capacity but also physical capacity. For example, it is possible that a modern switch requires less space in the buildings that contain switching equipment than the existing asset does and this should be accounted for in the MEA valuation.

C.3.1 Examples of MEA valuation

As explained above, MEA valuation is appropriate when technological progress has occurred. This means that it is likely to be an appropriate methodology for valuing an operator's switching/routing and transmission equipment, because these assets are

subject to considerable technological change. MEA valuation is likely to be the most appropriate approach to use for much of an operator's switching and transmission equipment.

Two examples are provided below as illustrations of how the process can be implemented, but it is important to note that an operator itself is in the best position to know what assets it owns, what assets are currently available to replace them and hence, which valuation methodology is appropriate in each case. The following examples refer to the valuation of a particular asset, but where an operator has more than one asset of each type and the assets were purchased at different points in time and hence, have different gross book values and levels of accumulated depreciation, these should be revalued separately. In order to simplify this process, assets of the same type and of the same "vintage" can be revalued together.

C.3.1.1 Example 1 – Increased capacity

This example is based on MEA valuation of an operator's switch or router and assumes that sufficient technological progress has been made to justify the use of MEA over absolute valuation (which is explained in Appendix C.2 above). This asset could be a next generation network (NGN) router in a fixed network or a mobile switching centre in a mobile network, the principles are the same regardless of the precise asset in question.

To revalue the asset, it is first necessary to identify the MEA. As explained above it should be the modern asset with the lowest net replacement cost calculated over the expected life of the asset, which has at least the same capacity and functionality as the existing asset.

Operators in Malaysia will know from their FARs how many of each type of asset they use and for this example we have assumed the number to be 10. We also assume an asset life of 10 years for a switch/router. It is possible that an operator will have purchased its existing assets at different points in time, and as noted above, in this case, each vintage of switch/router should be revalued as a tranche. In the example below, we assume that an operator has five switches of the same age which are being revalued together.

Table 38 below compares the existing switch against the MEA asset. In this example, while the price of the MEA is the same as the historical cost of the existing asset the MEA has greater capacity. For example, it could be capable of handling a greater number of busy hour call attempts. We assume for the sake of exposition that the MEA asset can

handle 1,000,000 busy hour call attempts as opposed to only 750,000 for the existing asset.

Table 38
Comparison of Existing Asset and MEA Asset

Asset	Historic cost (RM)	Asset life (years)	Age	Output
Existing asset	250,000,000	10	6	750,000
MEA	250,000,000	10	N/A	1,000,000

Source: NERA.

The process used to calculate the NRC from the GBV of the existing asset is shown in Table 39 below and the steps explained below the table. It is similar to the example in Table 37 above, but has the complication of the increased capacity.

Table 39
Calculation of NRC given Increased MEA Capacity

	Amount (RM)
GBV of existing asset	25,000,000
Accumulated depreciation	15,000,000
NBV of existing asset	10,000,000
Price of MEA	25,000,000
GRC (if same output as existing asset)	18,750,000
Revised GBV of existing asset	18,750,000
Revised depreciation on existing asset	11,250,000
NRC of existing asset	7,500,000
NBV of all such assets	50,000,000
NRC of all such assets	37,500,000

Source: NERA.

Given a GBV of RM 25,000,000 and using straight line depreciation over the 10 year asset life, a single switch of this vintage will each have accumulated depreciation of RM 15,000,000. This is calculated as 6/10 of the historic cost because the average asset is 6 years old and the asset life is 10 years. When the accumulated depreciation is subtracted from the GBV, this leaves an NBV of RM 10,000,000 for each switch.

In this example, the MEA has greater capacity than the existing asset (see Table 35). It is therefore necessary to adjust the MEA price to what it would be if the MEA had the same level of output as the existing asset (measured in this example by busy hour call attempts). This is done by multiplying the MEA price by the ratio of the existing asset output to the MEA output, in other words 750,000/1,000,000 * RM 25,000,000. The result, RM 18,750,000, is the GRC of each the existing asset, using MEA valuation and we adjust the accumulated depreciation in the same manner (750,000/1,000,000 * RM 15,000,000 = RM 11,250,000). Subtracting one from the other we find that the NRC of each existing switch is RM 7,500,000 and so for all five of the operator's assumed switches of this vintage the NRC is RM 37,500,000, compared to an NBV of RM 50,000,000.

This result can be checked simply by recalling that the existing asset has only three quarters of the capacity of the MEA, so its NBV must be reduced by a quarter to find the NRC.

C.3.1.2 Example 2 – Reduced operating costs

As explained above, an MEA may have lower operating costs than the existing asset. This might, for example, come about as result of improved energy efficiency, as is assumed in the example below in Table 40.

Again, an operator itself is in the best position to judge the merits of its assets relative to their modern equivalents, so for the purposes of this example we assume that the operator needs to perform an MEA valuation on its voicemail equipment. We assume, for illustrative purposes, that the reason for this is that as a result of technological change, MEA voicemail equipment requires 20% less electricity than the operator's existing asset. We assume for simplicity that the operator has only one voicemail system.

Table 40

Comparison of existing asset and MEA asset

Asset	Historic cost (RM)	Asset life (years)	Average age	Operating costs
Existing asset	200,000	10	4	25,000 p.a.
Modern asset	200,000	10	N/A	20,000 p.a.

Source: NERA.

Assuming that the existing asset has operating costs relating to electricity of RM 25,000 per year, then the equivalent figure for the MEA asset will be 20% less than this, or RM 20,000. The difference in the net present values (NPVs) of these sums over the ten year lifetime of the assets, discounted at a rate of 10%, is RM 30,723. The 10% discount rate is an assumption for the purposes of this example, and should be replaced by the relevant operator's cost of capital when the actual calculations are performed.

On the assumption that the existing asset is four years old, it has six years of life remaining during which savings in operating costs could be made were the asset to be replaced by its modern equivalent. Therefore 6/10 of the difference in NPVs (i.e. RM 18,434) should be deducted from the price of the MEA asset. Table 41 below shows the reduction in the price of the MEA from RM 200,000 to RM 181,566 in order to take account of the difference in operating costs and then revises the depreciation as in the previous example.

Table 41

Calculation of NRC given Lower MEA Opex

	Amount (RM)
GBV of existing asset	200,000
Accumulated depreciation	80,000
NBV of existing asset	120,000
Price of MEA	200,000
GRC (if lower opex taken into account)	181,566
Revised depreciation on existing asset	72,627
NRC of existing asset	108,940

Source: NERA.

C.4 Assets to be valued using MEAs

Examples of the types of assets that may be revalued using MEAs are:

(i) Radio equipment;
(ii) Exchange equipment;
(iii) Switches and routers;
(iv) Transmission equipment;
(v) IT and computer equipment.

C.5 Price Indices

The fourth methodology for revaluing assets at current costs involves the use of price indices. The latter is commonly found in interconnection cost models and SKMM and the operators will be familiar with it from their LRIC modelling process. The use of price indices is a second best option to absolute valuation when information on equipment quantities is not known. Consequently the use of price indices is only appropriate when a lack of detailed information on quantities of assets means that absolute valuation is not possible.

Furthermore, the use of price indices is only appropriate when there has been little technological change, the service potential of new assets is similar to that of the existing asset and all direct costs that have been incurred and capitalised would be incurred if the asset were replaced today. It is also necessary to have information on the age profile of assets and a split of the cost elements used in constructing the asset (pay, raw material, contract and other). In addition, care must be taken to avoid double counting, for example, if a trench is re-dug to install additional cable, as it is possible that some assets on the FAR may no longer be required.

In contrast to the use of prices and quantities in the absolute valuation explained in the preceding section, the use of price indices can be thought of as a "relative valuation" against prices in previous years. The historic costs of asset acquisition are multiplied by price indices to derive current cost valuations of those assets. An example price trend and price index is shown in Table 42 below.

Table 42

Price Index Example

	Year				
	1	2	3	4	5
Price change in year	2.0%	2.5%	3.0%	2.5%	2.5%
Price index	102.0	104.6	107.7	110.4	113.1

Source: NERA.

In this example, if an asset purchased at the end of Year 0 is to be revalued at the end of Year 4, its price must be multiplied by 1.104. The indices used to produce the valuation can be drawn from a number of sources:

(i) Internal asset specific indices;

(ii) External asset specific indices; or

(iii) A general price inflation index.

Each operator could construct an internal asset specific index using data on prices that it has paid for equipment over the years. This approach has the advantage that it reflects any discounts available to that operator against list prices, but also requires that the operator has consistently purchased equipment over a period of years. An external asset specific index, where available is an alternative and could be checked by third parties such as equipment manufacturers or suppliers. However, this approach would not account for factors specific to the operator, such as discounts or any framework contract. If these price indices are not available then a more general price inflation index could be used. While this will reflect broader economy-wide trends it will not capture asset specific price trends and hence, should only be used as a last resort.

C.5.1 Example of Price Index Valuation

As explained above, the use of price indices is appropriate in situations where information on the quantity of assets is not readily available, but the assets involved have not been subject to technological change. This makes it an appropriate methodology for assets such as support and inventory systems and fixtures, fittings and office equipment. In order to apply the methodology, the operator should first attempt to construct its own internal asset specific index, based on actual prices paid. If this is not possible, external price indices should be sought from equipment manufacturers and

suppliers. As explained above, only in the absence of these first two possibilities and as a last resort could a general price trend be used.

Furthermore, different elements of the costs of the asset will have different cost trends, so it will be necessary to separate pay related costs, raw material costs, contract costs and other costs, and apply appropriate cost trends to each element.

C.5.2 Assets to be valued using price indices

Examples of the types of assets that may be revalued using price indices are:

(i) Installation costs
(ii) Some transmission equipment, such as SDH
(iii) Planning costs
(iv) Poles
(v) Cabinets

C.6 Adjustments to Depreciation

The use of CCA requires a number of adjustments to be made to take account of holding gains and losses and the impact of asset price changes on depreciation. These are explained below.

C.7 Holding gains and losses

Holding gains and losses are unrealised changes in the value of assets as a result of changes in the current cost of assets held at year end. For example:

(i) If an asset was worth RM 1,000,000 at the beginning of the year and the asset price rises by 10% during the year, that asset would provide an unrealised holding gain of RM 100,000 (10% $\times$ 1,000,000). [11] This is treated as a negative cost (i.e. it increases profits).

(ii) If, on the other hand, the asset price fell by 10% during the year, an asset worth RM 1,000,000 at the beginning of the year would provide a holding loss of RM 100,000 (10% $\times$ 1,000,000). This is treated as a cost (i.e. it reduces profits).

Holding gains and losses are shown in the Income Statements (see Section 8 and Appendix B).

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[11] The holding gain is unrealised because the asset has not been sold.

Where there are asset acquisitions, disposals or write outs during the year, these should be treated as occurring at the end of the year for the purposes of calculating holding gains or losses. Supplementary depreciation (see next section) should also be calculated using year-end values.

C.8 Supplementary depreciation

Changes in asset prices also require changes to be made to depreciation charges. There will be an additional charge against revenue if asset prices are increasing (because the part of the asset that is "consumed" has risen in value) but a reduction in charges if asset prices are falling. These additional charges are referred to as supplementary depreciation.

This is illustrated in Table 43 and Table 44 below, which show the position for an asset that has a five year life and where asset prices are rising by 10% per annum and falling by 10% per annum respectively. In Table 43, the gross replacement cost (GRC) and gross book value (GBV) are used to calculate annual depreciation under CCA and HCA respectively over the five year life of the asset. The supplementary depreciation on the right hand side is simply the difference between the CCA and HCA annual depreciation charge. This must be added to the HCA depreciation and charged against revenue to reflect the current cost of assets consumed in the year.

Table 43
Supplementary Depreciation
(5 Year Asset Life and 10% p.a. Price Increase)

Year	Gross Replacement Cost	Gross Book Value	Annual Depreciation		
			CCA (20% of GRC)	HCA (20% of GBV)	Supplementary
0	1,000,000	1,000,000			
1	1,100,000	1,000,000	220,000	200,000	20,000
2	1,210,000	1,000,000	242,000	200,000	42,000
3	1,331,000	1,000,000	266,200	200,000	66,200
4	1,464,100	1,000,000	292,820	200,000	92,820
5	1,610,510	1,000,000	322,102	200,000	122,102

Source: NERA.

The calculation in Table 44 below follows the same format, but in this case the reduction in asset prices means that the GBV exceeds the GRV, and so the supplementary depreciation is negative.

Table 44
Supplementary Depreciation
(5 Year Asset Life and 10% p.a. Price Fall)

Year	Gross Replacement Cost	Gross Book Value	Annual Depreciation		
			CCA (20% of GRC)	HCA (20% of GBV)	Supplementary
0	1,000,000	1,000,000			
1	900,000	1,000,000	180,000	200,000	-20,000
2	810,000	1,000,000	162,000	200,000	-38,000
3	729,000	1,000,000	145,800	200,000	-54,200
4	656,100	1,000,000	131,220	200,000	-68,780
5	590,490	1,000,000	118,098	200,000	-81,902

Source: NERA.

Supplementary depreciation is shown on the Income Statements (see Section 8 and Appendix B).

C.9 Backlog depreciation

Just as changes in asset prices lead to changes in depreciation within the relevant year (supplementary depreciation), they also affect accumulated depreciation. Backlog deprecation adjusts accumulated depreciation to take account of any asset price changes. Continuing from the example shown for supplementary depreciation in Table 44 above (10% p.a. reduction in asset price), Table 45 below adds a column showing backlog depreciation. This is calculated as the difference between cumulative depreciation and required depreciation based on the gross replacement cost of the asset.

To give an example from Table 45 below, cumulative depreciation in Year 4 is calculated as CCA depreciation in Year 4 (or equivalently the sum of HCA deprecation and supplementary depreciation in Year 4) plus cumulative and backlog depreciation from Year 3. Required depreciation in Year 4 is simply four fifths of the GRC (because the asset has a five year life), and backlog depreciation in Year 4 is required depreciation minus cumulative depreciation.

Table 45

Example of Backlog Depreciation Calculation

Year	Gross Replacement Cost	Annual Depreciation					
		CCA	HCA	Supplementary	Cumulative	Required	Backlog
0	1,000,000						
1	900,000	180,000	200,000	-20,000	180,000	180,000	0
2	810,000	162,000	200,000	-38,000	342,000	324,000	-18,000
3	729,000	145,800	200,000	-54,200	469,800	437,400	-32,400
4	656,100	131,220	200,000	-68,780	568,620	524,880	-43,740
5	590,490	118,098	200,000	-81,902	642,978	590,490	-52,488

Source: NERA.

Any backlog depreciation is recorded in RFS in the Income Statement under "Other adjustments".

APPENDIX D: COST ATTRIBUTION GUIDELINES

D.1 Fixed Network: Methods of Attributing Operating Costs

Category of functional operating cost (cost centre)	Description of account type	Cost driver	Method of Attribution
Depreciation	Depreciation	Refer to capital employed below	The attribution of depreciation should follow the attribution of the fixed asset plant groups to which it relates (see capital employed below).
Provision and installation of equipment	Payroll costs	Time spent	Direct to network components/other plant where possible, otherwise attribute to network components/other plant based on the time spent carrying out provisioning and installation work.
	Installation, contract and maintenance costs	Installation and maintenance activity	Direct to network components/other plant on the basis of the plant installed or maintained where possible.
Maintenance and repair costs	Payroll costs	Time spent	Direct to network components/other plant where possible, otherwise attribute to network components/other plant based on the time spent carrying out repair work.
	Other costs	Repair data	Direct to network components/other plant where possible, otherwise apportion in line with costs that can be attributed.

Category of functional operating cost (cost centre)	Description of account type	Cost driver	Method of Attribution
Network planning and developments costs	Payroll and external costs	Planning and development activity	Direct to network components/other plant where possible, otherwise apportion in line with costs that can be attributed.
Network management costs	Payroll costs	Time spent	Attribute to network components/other plant on the basis of the time spent by staff to manage each type of plant.
	Other costs	Time spent	Attribute to network components/other plant on the basis of the plant managed, where possible, otherwise apportion in line with costs that can be attributed.
Marketing and sales costs	Payroll	Customer acquisition	Direct to products and services where possible, otherwise attribute between products based on revenues from customer segments.
	Cost of sales of equipment	Volume of equipment	Attribute to customer equipment services within "Other activities".
	Publicity, Promotions, Market research fees, Other costs	Customer segment analysis	Direct to products and services where possible. Otherwise, for those costs where multiple services are being marketed or promoted, cost should be attributed to the related services on a revenue basis for customer segments.
Billing and collection costs	Payroll costs	Number of customers and bills raised	Direct to products and services where possible, otherwise attribute between products based on activity surveys or the number of customers/number of bills raised.

Category of functional operating cost (cost centre)	Description of account type	Cost driver	Method of Attribution
	Other billing costs (incl. Bad debts)	Number of customers and bills raised	Direct to products and services where possible, otherwise attribute between products based on usage (e.g. number of bills produced) and/or revenue.
Operator services costs	Payroll costs	Time spent	Direct to services where possible. The costs of staff that carry out tasks for several operator services should be attributed to the related operator services based on surveys of time spent on different tasks and activities.
Payments to other operators	Out payments for outgoing traffic	Interconnection traffic	Direct to products and services.
Support costs	Human resources function costs (residual)	Headcount	HR function costs should be attributed to the staff that are overseen by the HR function.
	Finance and other head office support functions	Time spent	If related specifically to a product, service or business attribute accordingly using time spent, otherwise apportion as common (unattributable).
	Building costs and rent	Occupancy rate	Costs should be attributed according to occupancy from survey data.
	General computing/IT costs	Computer use	Attribute to operations and system development on the basis of the use of the computers to support each application (jobs and projects). Costs attributed to applications can then be attributed to those products and services that they support.

D.2 Fixed Network: Methods of Attributing Capital Employed

Category of assets and liabilities	Description of account type	Cost driver	Method of Attribution
Switching/routing equipment	Local switching (PSTN)	Traffic	For PSTN networks the traffic-related network components of local exchanges should be identified using information from manufacturers or engineering studies. The costs of the traffic-related network components of local exchanges should be attributed based on the use of equipment by different services (i.e. traffic levels). For the access-related network components of local exchanges see below.
	Core switching/routing equipment	Traffic	Direct to network components where possible, otherwise attribute based on traffic.
	International switching/routing equipment	Traffic	Direct to network components where possible, otherwise attribute based on traffic.
	Switching equipment for special services	Service traffic	Direct to core network components where appropriate/required by regulation or to the specific services provided by other networks – e.g. specific data switching equipment should be attributed directly to data transmission services.
	Other switching/routing equipment	Traffic	Direct to network services where possible, otherwise attribute to other switching network components on the basis of the use of the equipment.

Category of assets and liabilities	Description of account type	Cost driver	Method of Attribution
Transmission equipment	Traffic-sensitive transmission equipment	Circuit numbers /traffic volumes	Costs include both capital and maintenance and need to be attributed using circuit volumes based on a common unit (e.g. number of 2 Mbit/s paths).
	Transmission fibre	Circuit capacity	Direct to services where possible, otherwise attribute to services based on use of capacity.
	International/submarine cable	International traffic	Direct to network components where possible, otherwise attribute based on usage.
	Accommodation plant (network), e.g. air conditioning	Space occupied	Costs should be attributed to plant groups based on space occupied.
Other primary network assets	Local exchange (access network)	Connections	Total cost of local exchange (including capital, pay and indirect costs) should be split between access and core network components using data provided by manufacturers or engineering studies. Access network components (e.g. line cards) should be attributed to services based on the number of connections.
	DSLAMs	Tie cable volumes	Costs should be attributed to products and services based on tie cable numbers.
	MDF	Connections	Costs of main distribution frames should be attributed based on the number of connections.
	Local loop copper	Connections	Costs associated with the provision, installation and recovery of copper cable in the access network (both capital and maintenance) should be attributed based on the number of connections.

Category of assets and liabilities	Description of account type	Cost driver	Method of Attribution
Other primary network assets	Local loop fibre	Number of circuits	Costs associated with the provision, installation and recovery of fibre cable in the access network (both capital and maintenance) should be attributed based on the number of circuits.
	Special network plant	Service traffic	Plant and equipment that is used solely to provide one specific service should be allocated directly to the relevant services. Examples may include: Intelligent network equipment, Data transmission equipment and Multimedia equipment.
	Customer premises equipment	Number of customer	Direct to products and services where possible. Otherwise attribute to products and services using appropriate cost driver (e.g. use connections for network termination equipment).
	Public payphones and related equipment	Number of payphones	Direct to service.
Support Plant	Ducting	Engineering data	Ducting can be attributed to the cable and fibre that it supports and attributed to products in the same way as cable and fibre. Engineering studies are used to attribute duct for fibre and duct for copper cable.
	Power equipment	Power usage	Attribute to plant groups on the basis of the use of power equipment, e.g. kilowatts per hour. Assets should then be attributed to products in the same way as the relevant plant groups.
	Common Intelligence Service Layer	Call volumes	These costs include CISL that supports Basic and Advanced Number Translation Services and should be attributed using call volumes.
	Ethernet Infrastructure	Service traffic	The costs of provision of Ethernet connectivity can be directly attributed.

Category of assets and liabilities	Description of account type	Cost driver	Method of Attribution
Support Plant	Network management systems	Usage	Attribute to plant groups on the basis of their use of the systems, e.g. time spent to control different types of switch/router. Costs should be attributed to products and services in the same way as the related plant group.
Non-network fixed assets	Land and buildings	Square metre occupancy	Attribute to products, services and network components on the basis of the space occupied (i.e. floor space) to support each product, service or network component.
	General computers	Usage	Attribute to the applications run by the operator on the basis of the use of the computers to support each application. Costs attributed to applications can then be attributed to those products and services that they support.
	Motor vehicles	Usage	Attribute to products, network components and activities based on usage.
	Furniture and office equipment	Usage	Attribute to products and network components based on survey data.
Intangible fixed assets	Licence fees	Revenue basis	Direct to products where possible, otherwise on the basis of revenues.
	Other	Revenue basis	Attribute to products and services based on revenues achieved.
Working capital	Fixed asset investments (associates and joint ventures)	n/a	Direct to "Other activities".
	Other investments	n/a	Direct to "Other activities".

Category of assets and liabilities	Description of account type	Cost driver	Method of Attribution
Working capital	Short-term investments (including cash at bank and in hand)	Operating profits	Direct to products and services where possible, otherwise attribute based on the operational requirements of each product or service using net operating profit.
	Stocks	Apparatus supply and network equipment	Stocks should be attributed directly to products, services or plant groups.
	Trade debtors/receivables	Turnover	Trade debtors may be attributed to products and services based on billing system information where possible.
	Other debtors/receivables	Various	Other debtors/receivables should be attributed to activities and plant groups using bases appropriate to the particular debtor type (e.g. payroll debtors on the basis of total pay).
	Trade creditors	Operating expenses	Trade creditors should be attributed directly to products and services if possible.
	Long term provisions	Various	Provisions are either attributed directly to activities and plant groups or using a base appropriate to the particular charge (e.g. provisions relating to the cost of vacating leased buildings are attributed using the accommodation base).

D.3 Mobile Network: Methods of Attributing Operating Costs

Category of functional operating cost (cost centre)	Description of account type	Cost driver	Method of Attribution
Depreciation	Depreciation	Refer to capital employed below	The attribution of depreciation should follow the attribution of the fixed asset plant groups to which it relates (see capital employed below).
Provision and installation of equipment	Payroll costs	Time spent	Direct to network components/other plant where possible, otherwise attribute to network components/other plant based on the time spent carrying out provisioning and installation work.
	Installation, contract and maintenance costs	Installation and maintenance activity	Direct to network components/other plant on the basis of the plant installed or maintained where possible.
Maintenance and repair costs	Payroll costs	Time spent	Direct to network components/other plant where possible, otherwise attribute to network components/other plant based on the time spent carrying out repair work.
	Other costs	Repair data	Direct to network components/other plant where possible, otherwise apportion in line with costs that can be attributed.
Network planning and developments costs	Payroll and external costs	Planning and development activity	Direct to network components/other plant where possible, otherwise apportion in line with costs that can be attributed.
Network management costs	Payroll costs	Time spent	Attribute to network components/other plant on the basis of the time spent by staff to manage each type of plant.

Category of functional operating cost (cost centre)	Description of account type	Cost driver	Method of Attribution
Network management costs	Other costs	Time spent	Attribute to network components/other plant on the basis of the plant managed, where possible, otherwise apportion in line with costs that can be attributed.
Marketing and sales costs	Payroll	Customer acquisition	Direct to products and services where possible, otherwise attribute between products based on revenues from customer segments.
	Cost of sales of equipment	Volume of equipment	Attribute to customer equipment services within "Other activities".
	Publicity, promotions, market research fees, other costs	Customer segment analysis	Direct to products and services where possible. Otherwise, for those costs where multiple services are being marketed or promoted, cost should be attributed to the related services on a revenue basis for customer segments.
Customer service and support	Payroll costs	Number of customers and bills raised	Direct to products and services where possible, otherwise attribute between products based on activity surveys or the number of customers/number of bills raised.
Billing and collection costs	Other billing costs (incl. Bad debts)	Number of customers and bills raised	Direct to products and services where possible, otherwise attribute between products based on usage (e.g. number of bills produced) and/or revenue.
	Payroll costs	Time spent	Direct to services where possible. The costs of staff that carry out tasks for several operator services should be attributed to the related operator services based on surveys of time spent on different tasks and activities.

Category of functional operating cost (cost centre)	Description of account type	Cost driver	Method of Attribution
Payments to other operators	Out payments for outgoing traffic	Interconnection traffic	Direct to products and services.
Support costs	Human resources function costs (residual)	Headcount	HR function costs should be attributed to the staff that are overseen by the HR function.
	Finance and other head office support functions	Time spent	If related specifically to a product, service or business attribute accordingly using time spent, otherwise apportion as common (unattributable).
	Building costs and rent	Occupancy rate	Costs should be attributed according to occupancy from survey data.
	General computing/IT costs	Computer use	Attribute to operations and system development on the basis of the use of the computers to support each application (jobs and projects). Costs attributed to applications can then be attributed to those products and services that they support.

D.4 Mobile Network: Methods of Attributing Capital Employed

Category of assets and liabilities	Description of account type	Cost driver	Method of Attribution
Radio access network	Radio equipment: TRXs/carriers	Traffic	Attribute to services on the basis of resources used by different types of traffic.
	BTS/Node B, including sites, masts, power	Traffic	As above.
	BSC/RNC	Traffic	As above.
Core network	MSC/MSC-CS	Subscribers, traffic	Attribute to services based on subscriber numbers and engineering data on traffic.
	MGW	Subscribers, traffic	Attribute to services based on subscriber numbers and engineering data on traffic.
	SGSN/GGSN	Data traffic	Attribute directly to plant groups for data traffic.
	SMSC	SMS messages	Attribute directly to plant groups for SMS traffic.
Transmission equipment	Traffic-sensitive transmission equipment	Circuit numbers /traffic volumes	Costs include both capital and maintenance and need to be attributed using circuit volumes based on a common unit (e.g. number of 2 Mbit/s paths).
Support plant	Power equipment	Power usage	Attribute to plant groups on the basis of the use of power equipment, e.g. kilowatts per hour. Assets should then be attributed to products in the same way as the relevant plant groups.

Category of assets and liabilities	Description of account type	Cost driver	Method of Attribution
Support plant	Network management systems	Usage	Attribute to plant groups on the basis of their use of the systems, e.g. time spent to control different types of switch/router. Costs should be attributed to products and services in the same way as the related plant group.
Non-network fixed assets	Land and buildings	Square metre occupancy	Attribute to products, services and network components on the basis of the space occupied (i.e. floor space) to support each product, service or network component.
	General computers	Usage	Attribute to the applications run by the operator on the basis of the use of the computers to support each application. Costs attributed to applications can then be attributed to those products and services that they support.
	Motor vehicles	Usage	Attribute to products, network components and activities based on usage.
	Furniture and office equipment	Usage	Attribute to products and network components based on survey data.
Intangible fixed assets	Licence and spectrum fees	Revenue basis	Direct to products where possible, otherwise on the basis of revenues.
	Other	Revenue basis	Attribute to products and services based on revenues achieved.
Working capital	Fixed asset investments (associates and joint ventures)	n/a	Direct to "Other activities".

Category of assets and liabilities	Description of account type	Cost driver	Method of Attribution
Working capital	Other investments	n/a	Direct to "Other activities".
	Short-term investments (including cash at bank and in hand)	Operating profits	Direct to products and services where possible, otherwise attribute based on the operational requirements of each product or service using net operating profit.
	Stocks	Apparatus supply and network equipment	Stocks should be attributed directly to products, services or plant groups.
	Trade debtors/receivables	Turnover	Trade debtors may be attributed to products and services based on billing system information where possible.
	Other debtors/receivables	Various	Other debtors/receivables should be attributed to activities and plant groups using bases appropriate to the particular debtor type (e.g. payroll debtors on the basis of total pay).
	Trade creditors	Operating expenses	Trade creditors should be attributed directly to products and services if possible.
	Long term provisions	Various	Provisions are either attributed directly to activities and plant groups or using a base appropriate to the particular charge (e.g. provisions relating to the cost of vacating leased buildings are attributed using the accommodation base).

APPENDIX E: SIGNIFICANT ACCOUNTING POLICIES

Below are the most significant and relevant accounting policies for the purposes of producing the RFS. They are separately presented for fixed and mobile networks because the nature and structure of their operations differ. Also identified are accounting policies that should be common to both fixed and mobile networks. Since this review has been performed on the basis of the operators' 2010 statutory accounts, it explains the policies that would need to be applied for AS in that year. When the first set of RFS is produced for 2013, the accounting policies should match those in the operators' 2013 statutory accounts.

E.1 Fixed Network

The Group Financial Statements are prepared in accordance with the provisions of the Companies Act, 1965, the International Financial Reporting Standards (IFRS), and the MASB Approved Accounting Standards in Malaysia for Entities Other than Private Entities.

The financial statements are prepared under the historical cost convention except as disclosed in the significant accounting policies. Based on the accounting policies in the Group Financial Statements for 2010, the following policies would need to be followed for the production of the RFS for that year.

E.1.1. Fixed Assets

The cost of the telecommunications network should include expenditure up to and including the last distribution point before the customers' premises and include related material, labour and associated overhead charges. The cost of other property, plant and equipment should comprise their purchase price and any incidental costs of acquisition.

Depreciation should be implemented on a straight line basis to write off the cost of the assets over their estimated useful lives as follows:

(i)	Telecommunication network	3-25 years
(ii)	Movable plant and equipment	5-8 years
(iii)	Computer support systems	3-5 years
(iv)	Buildings	5-40 yeas

Depreciation should not be implemented on assets with an infinite life or on land. Leasehold land should be amortised in equal instalments over the period of the respective leases. Long term leases should have an expiry period of over 50 years.

Assets with indefinite useful lives should not be subject to amortisation and should be tested annually for impairment. Other assets with definite useful lives should also be assessed for impairment whenever events and changes in events indicate that the carrying amount may not be recoverable. Any losses arising should be written off to the Income Statement.

E.1.2 Financial Assets

Financial assets held for trading with the purpose of selling within a year should be valued at year end and any surplus or deficit put through the Income Statement. Financial assets not held for trading should be classified as hedging instruments and not included within the MCE Statement. The Group Company only applies fair value hedge accounting for hedging fixed interest risk on borrowings, so this policy should also be followed for the RFS. Changes in the fair value of the hedged fixed rate borrowings attributable to interest rate risk should be recognised in the Income Statement within "finance costs".

Available-for-sale Financial Assets represent non-derivatives that should either be designated in this category or not classified in any of the other categories. They should be included in non-current assets unless the investment matures or management intends to dispose of them within 12 months from the end of the reporting period. These should initially be capitalised at cost and subsequently recorded at fair value. Changes in the value of these investments should not be recorded in the Income Statement until the investment is sold.

E.1.3 Grants and Universal Service Provision (USP) Funding

Government grants should be recognised at their fair value where there is a reasonable assurance that the grant will be received and the Group will comply with all attached conditions. Government grants relating to income should be deferred and recognised in the Income Statement when the expenditure to which they relate is incurred. Government grants relating to the purchase of assets should be deferred and shown in

non-current liabilities and recognised in income over the estimated useful lives of the related assets.

The cost of funding the USP should be included as part of the operating cost base in both the statutory accounts and the RFS. Any government grants received in respect of this expenditure are treated in accordance with the stated policy and recognised in the Income Statement when the expenditure to which they relate is incurred.

E.1.4 Revenue

Revenue should comprise the fair value of the consideration received and receivable for the sale of products and services net of returns, duties and sales discounts. Operating revenue should be recognised or accrued at the time of the provision of products and services, when the amount of revenue can be reliably measured and it is probable that the future economic benefits will flow to the Group. Advance billings comprise mainly billings for data services, which should be amortised on a straight line basis according to contractual terms.

E.2 Mobile Networks

The mobile market is served predominantly by several mobile operators, some comprising a number of subsidiary companies operating within Malaysian territory and overseas. The Group Financial Statements of these operators are prepared in accordance with IFRSs and the Companies Act, 1965 in Malaysia. All financial statements are prepared on the historical cost basis unless otherwise indicated in the accounting policies stated below.

Although the individual companies follow the accounting policies as prescribed by the Malaysian Financial Reporting Standards, the companies are allowed a degree of flexibility with which to apply them to their individual results. The preparation of both statutory and RFS often involves the use of estimates and assumptions that are likely to differ between various organisations and businesses and require management to exercise a level of judgment in the process of applying the Group accounting policies.

For instance, the accounting policy for spectrum costs differs between the mobile operators. While some capitalise the spectrum costs and amortise them over the term of the spectrum, others considers expenditure incurred in acquiring telecommunications licences with allocated spectrum rights to have infinite economic useful lives and related

costs are therefore capitalised but not amortised. This is because their Directors are of the opinion that the licence can be renewed in perpetuity at negligible cost. The company carries out annual impairment reviews.

E.2.1 Basis of consolidation

As noted in Section 4.1.2 some of the mobile operators have complex corporate structures. For the purposes of AS intra-group income and expenses should be eliminated on consolidation so that the consolidated financial statements reflect only external transactions

Subsidiaries should be consolidated using the purchase method of accounting. Under this method the results of subsidiaries acquired or disposed of during the financial year are included in the Income Statement from the effective date of acquisition or up to the effective date of disposal. The subsidiaries' identifiable assets acquired are measured initially at fair value at the date of acquisition. Adjustments to those fair values relating to previously held interests are treated as a revaluation and recognised in other comprehensive income, in other words the adjustments do not pass through the Income Statement and should be posted directly to reserves.

E.2.2 Fixed Assets

Property, Plant and Equipment should be stated at cost less accumulated depreciation and impairment losses. Cost should include expenditure that is directly attributable to the acquisition of an asset. CWIP comprising mainly telecommunication equipment, submarine cables and renovations is not depreciated until the types of equipment concerned are ready for their intended use. We note that the accounting treatment of fixed assets varies between the mobile networks, as shown in Table 46 below.

Table 46 Mobile Network Policies on Asset Lives (years)

	Company A	Company B	Company C
Leasehold land	50-90	20-100	30-99
Buildings	42-50	5-50	50
Network equipment	4-25	3-20	3-30
Movable plant and equipment	3-7	5-8	3-5
Computer support systems	3-7	3-5	3-5

Source: Operators' statutory accounts.

As explained above, it is essential for the production of the RFS that the operators match their own statutory accounting policies, even where this will lead to differences between the operators in the accounting policies used for their RFS.

E.2.3 Intangibles

Intangibles can be acquired through a business combination or through separate acquisitions. Intangible assets acquired in a business combination should be recorded at fair value at the date of acquisition and recognised separately from goodwill.

Intangible assets that are considered to have a finite life should be amortised on a straight line basis over the period of expected benefit. (Spectrum costs should be amortised over the spectrum period). Assets with no finite lives, or not yet available for use, should not be amortised. Impairment reviews should be carried out annually.

Handset subsidies, meaning expenditure incurred in providing customers with free or subsidised handsets, should be capitalised as intangible assets and amortised over the contractual period on a straight line basis, provided the customer signs a non-cancellable contract for a predetermined contractual period. Investments should be excluded from the statement of MCE if they are not related to regulated activities e.g. speculative investments in property.

E.2.4 Current Assets

Inventories**,** which comprise telecommunication components, incidentals and devices, should be stated at the lower of cost and net realisable value. Cost includes the actual

cost of materials and incidentals in bringing the inventories to their present location and condition and is determined on a weighted average basis.

Financial assets are deemed to be held for trading unless they are designated as effective hedging instruments.

E.2.5 Grants and USP Funding

As universal service providers the operators are entitled to obtain certain qualified expenses from the SKMM in relation to USP projects. These are treated as government grants and should be recognised at their fair value where there is reasonable assurance that the grants will be received. Grants related to assets should be treated as income over the life of the related assets by way of a reduced depreciation charge. Grants related to income should be recognised in the Income Statement by crediting directly against the related expense.

E.3 Common Accounting Policies

E.3.1 Borrowing Costs

Borrowing costs that are directly attributable to the acquisition, construction or production of a qualifying asset should be capitalised as part of the cost of the assets. Other borrowing costs should be recognised as an expense in the Income Statement when incurred.

Fees paid on the establishment of loan facilities should be recognised as transaction costs of the loan to the extent that it is probable that some or all of the facility will be drawn. To the extent that there is no evidence that the loan facility will be drawn, the fee should be capitalised as a prepayment and amortised over the period of the facility to which it relates.

E.3.2 Provisions for Liabilities and Charges.

Provisions should be recognised when the Group has an obligation as a result of past events, and it is probable that an outflow of resources will be required to settle the obligation. As such the provision will form part of the operating expenditure and will be treated as any other cost for the Regulatory Accounting purposes.

E.3.3 Significant Related Party Transactions

A related party transaction is a transfer of resources, services or obligations between related parties regardless of whether a price is charged. Our review of the Malaysian operators' statutory accounts revealed that there were a considerable number of these transactions.

For the purposes of preparing the RFS, as for their statutory accounts, the amounts due from/(to) related parties should be disclosed and the nature of the transactions that have taken place. All related party transactions should be entered in the normal course of business and at prices available to third parties or on negotiated terms.

E.3.4 Financial Instruments

The RFS exclude income, costs, assets and liabilities relating to regulatory entities' long-term funding. Accordingly, substantially all of the accounting for financial instruments is excluded from the RFS, except to form part of the Reconciliation Statement.