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GENERAL NOTICE

NOTICE 279 OF 2002



INDEPENDENT COMMUNICATIONS AUTHORITY OF SOUTH AFRICA

NOTICE OF INTENTION TO MAKE REGULATIONS IN RESPECT OF ACCOUNTS AND RECORDS TO BE KEPT BY TELECOMMUNICATION LICENSEES RELATING TO THE PROVISION OF THEIR TELECOMMUNICATION SERVICE.

Notice is hereby given that the Independent Communications Authority of South Africa (ICASA) intends making the following regulations in terms of section 96 (1) (a) and 96 (4) read with section 46 of the Telecommunications Act 103 of 1996, as amended.

Interested persons are invited to submit written comments or written representations with regard to the proposed regulations, to be received **by no later than 16h00 on Tuesday 02 April 2002** by post, hand delivery or facsimile

transmission and by an electronic version in Microsoft Word 6.0 or lower, for the attention of Mr Peter Hlapolosa, ICASA, Private Bag X 10002, Sandton, 2146 ; or

hand-delivered to ICASA, Block A, Pinmill Farm, 164 Katherine Street, Sandton; or

faxed to (011) 321 8536; or

emailed to peterh@icasa.org.za

MANDLA LANGA
CHAIRPERSON
ICASA



INDEPENDENT COMMUNICATIONS AUTHORITY OF SOUTH AFRICA

CHART OF ACCOUNTS AND COST ALLOCATION MANUAL

VOLUME 1 – REGULATORY ACCOUNTING GUIDELINES

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Definitions

Definitions

In these regulations, words shall have the same meaning assigned to them in the Telecommunications Act 103 of 1996, as amended, unless the context indicates otherwise.

Affiliates	Corporations or business enterprises that are: <ul style="list-style-type: none"> • members of the same group of companies as the Corporate Entity, including subsidiaries, joint venture partners, joint venture companies and other similar arrangements, and the group's associated companies over which the Corporate Entity's ultimate shareholder (where the ultimate shareholder excludes the Government) can exert significant influence; and • companies outside the group of companies of which the Corporate Entity is a member, over which the Corporate Entity's ultimate shareholder (where the ultimate shareholder excludes the Government) can exert significant influence.
Authority	Independent Communications Authority of South Africa.
Business	The Network Business and Retail Business, which together constitute the Regulated Segment.
Corporate Entity	The registered company or other legal entity that is regulated by the Authority and which includes a Regulated Segment.
Detailed Requirements	Volumes 2 and 3 and any other future volumes of the COA/CAM which provide guidelines, by class of Operator, for preparing and reporting information to the Authority. The Detailed Requirements are applicable to specified classes of Operators who are regulated by the Authority.
Fully Allocated Cost	A basis of accounting whereby all of an entity's directly attributable, indirectly attributable and unattributable costs are attributed fully to services.
Government	Government of the Republic of South Africa.
Interconnect	As defined in the Telecommunications Act 103 of 1996, as amended.
Licence	As defined in the Telecommunications Act 103 of 1996, as amended.
Mobile Cellular Telecommunications Service	As defined in the Telecommunications Act 103 of 1996, as amended.
MCTS Licensee	A holder of a Licence to provide Mobile Cellular Telecommunications Services.
Network Business	All the revenues, costs, assets and liabilities associated with the provision, operation and maintenance of network infrastructure services to the Retail Business and other Operators under Interconnect, wholesale or equivalent terms.
Operator	Holder of a telecommunication service licence issued under Section 34(2), Section 39 or Section 40A of the Telecommunications Act 103 of 1996, as amended.
Procedures Manuals	The detailed methodologies and processes implemented and documented by each Operator, to comply with the accounting and reporting practices defined in the COA/CAM.

Definitions

PSTS Licensee	A holder of a Licence to provide Public Switched Telecommunications Services.
Public Switched Telecommunications Service	As defined in the Telecommunications Act 103 of 1996, as amended.
Regulated Segment	All segments related to the provision of Telecommunication Services in accordance with a Licence issued under the Telecommunications Act 103 of 1996, as amended.
Regulatory Financial Statements	The reports Operators are required to produce and which must be audited on an annual basis.
Retail Business	All the revenues, costs, assets and liabilities associated with the provision of Telecommunication Services to end-users (including, inter alia, VAN and PTN operators) of those services.
Telecommunications Service	As defined in the Telecommunications Act 103 of 1996, as amended.
Unregulated Segment	The Corporate Entity excluding the Regulated Segment.

Introduction

1 INTRODUCTION

1.1 Objectives

The objective of the Chart of Accounts/Cost Allocation Manual ("COA/CAM") is to set out a structured accounting and regulatory reporting framework for Operators who fall within the regulatory jurisdiction of the Authority. The COA/CAM seeks to ensure that Operators provide regular information that allows the Authority to meet its regulatory objectives.

1.2 Applicability of the COA/CAM to Operators

The COA/CAM requirements shall apply in full to all Operators, unless otherwise determined by the Authority by notice in the Government Gazette.

The Authority may publish the list of Operators who are excluded from the requirements of the COA/CAM, or to whom the COA/CAM requirements shall apply in part, on issue of the COA/CAM and at least every two years thereafter. The Authority may publish additional notices where the need arises due to changing circumstances.

1.3 Effective Implementation Date of the COA/CAM

The first submission of Regulatory Financial Statements shall take place within six months of the first financial year end of the Operator, either following the date on which the COA/CAM becomes a regulation, or the date on which the Operator is no longer excluded from the requirements of the COA/CAM.

The Authority recognises that the effective date of implementation may place an onerous burden on Operators. The Authority shall therefore set out phased implementation reporting timeframes in writing to Operators, taking account of Operator circumstances.

1.4 Regulatory Objectives

The role of the Authority is "to ensure the provision of fair, efficient and affordable telecommunications services in the community".

The Authority's regulatory objectives, inter alia, are:

- ensuring that Operators do not exploit their market power to earn excess monopoly profits;
- ensuring that Operators do not engage in predatory pricing (i.e. pricing services below cost in order to exclude competition);
- ensuring that Operators do not engage in anti-competitive cross subsidisation;
- ensuring that Operators do not price on a discriminatory basis;
- ensuring that charges are cost orientated and sufficiently unbundled;
- protecting consumers by monitoring and approving tariffs and pricing regimes; and
- monitoring the financial performance and situation of Operators.

Introduction

1.5 Mandate

The Authority's legal mandate is set out in the Telecommunications Act 103 of 1996, as amended.

Section 46 requires that *"A telecommunication service licensee shall keep such accounts and records relating to the provision of his or her telecommunication service as may be prescribed."*

1.6 Structure of the COA/CAM

The COA/CAM comprises three volumes:

- Volume 1 – Regulatory Accounting Guidelines;
- Volume 2 – Detailed Requirements for Mobile Cellular Telecommunication Service Licensees; and
- Volume 3 – Detailed Requirements for Public Switched Telecommunication Service Licensees.

Volume 1 sets out the high level concepts and principles for regulatory accounting and reporting. These guidelines are set out as follows:

- Section 2 describes the level of disaggregation required;
- Section 3 describes the reports that Operators must produce;
- Section 4 describes the accounting separation principles that Operators must adhere to;
- Section 5 describes the attribution methodology guidelines which Operators must adopt;
- Section 6 describes the general accounting principles and policies which Operators must adopt;
- Section 7 describes the current cost accounting principles which Operators must adopt;
- Section 8 describes the long run incremental costing policies which Operators must adopt;
- Section 9 describes the high level principles for the COA to which Operators must maintain a translation from their general ledger; and
- Section 10 describes the administrative framework that governs the COA/CAM.

Volumes 2 and 3 define the detailed application of the high level concepts and principles for MCTS and PSTS Licensees respectively. Other volumes may be introduced in due course to cover detailed requirements for other classes of Operator, for example multimedia Operators.

Each Operator must document the methodologies and processes it has implemented to comply with the Regulatory Accounting Guidelines and the Detailed Requirements in a Procedures Manual. The Procedures Manual must be submitted for approval by the Authority.

The COA/CAM does not seek to fully define all information that the Authority may require in order to fulfil its regulatory objectives. Further information may be requested by the Authority in terms of Section 27 of the Telecommunications Act 103 of 1996, as amended.

Level of Disaggregation

2 LEVEL OF DISAGGREGATION

2.1 Overview

Accounting separation involves analysing the Corporate Entity between Regulated and Unregulated Segments, separate Businesses (as defined below), and groups of services. The Authority shall decide whether consolidated or unconsolidated financial statements should be used as the starting point for accounting separation, based on the Operator's group structure.

The level of disaggregation is driven by the Authority's need to exercise specific regulatory responsibilities, and varies by class of Operator. Operators must prepare statements for:

- Regulated and Unregulated Segments;
- Businesses; and
- services.

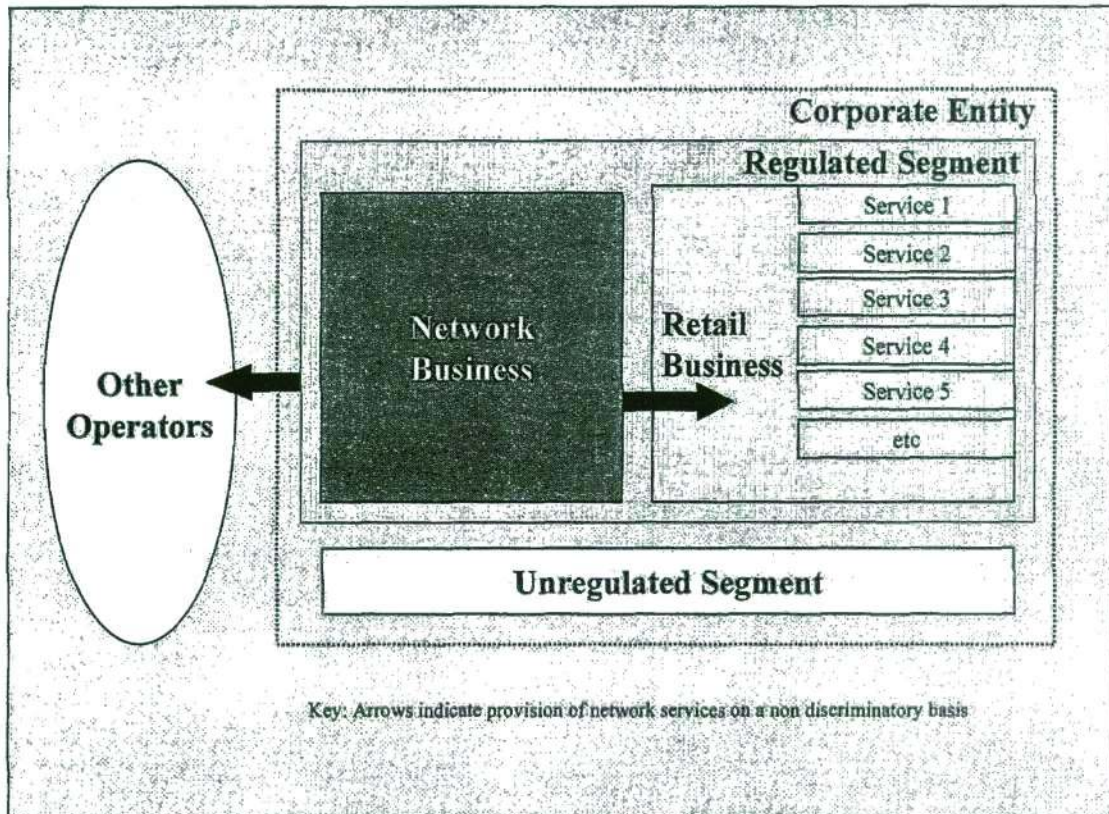
All Operators are required to prepare income statements, statements of capital employed and supporting schedules and notes for the Regulated and Unregulated Segments, Businesses and services. The level of segment disaggregation may vary by class of Operator.

The Detailed Requirements set out the segments for which Operators must report, and the format of required reports.

This overall concept is illustrated diagrammatically below.

Level of Disaggregation

Figure 1: Illustration of Corporate Entity Disaggregation



2.2 Corporate Entity Disaggregation

The following separation of the Corporate Entity is required:

- Regulated Segment; and
- Unregulated Segment.

The Regulated Segment includes all Telecommunications Services, as defined in the Telecommunications Act 103 of 1996, as amended.

The Unregulated Segment comprises all other activities of the Corporate Entity and may include, but is not limited to, activities such as real estate rental. The Unregulated Segment also includes subsidiaries or associates that are already regulated in their own right.

Level of Disaggregation

2.3 Business Disaggregation

The Regulated Segment requires separation into the following businesses:

- Network Business (or businesses); and
- Retail Business.

2.3.1 Network Business

The Network Business comprises all the revenues, costs, assets and liabilities associated with the provision, operation and maintenance of network infrastructure services provided to the Retail Business and other Operators under Interconnect, wholesale or equivalent terms.

2.3.2 Retail Business

The Retail Business comprises those Regulated Segments excluding those contained in the Network Business. The Retail Business includes all the revenues, costs, assets and liabilities associated with the provision of Telecommunication Services to end users (including inter alia, VAN and PTN operators) of those services. This includes the bought in costs of network services purchased from the Network Business.

2.4 Service Disaggregation

Requirements to disaggregate the Retail Business into services are set out in the Detailed Requirements. The level of service disaggregation may vary by class of Operator.

Reporting Requirements

3 REPORTING REQUIREMENTS

3.1 Regulatory Financial Statements

Regulatory Financial Statements will comprise the following reports:

- current cost statements:
 - income statements by segment;
 - statements of capital employed by segment;
 - statement of network component costs; and
 - statement of network service costs.
- long run incremental cost ("LRIC") statements:
 - statement of costs on a long run incremental cost basis (no mark up); and
 - statement of costs on a long run incremental cost basis (mark up).
- reconciliation statements:
 - income statement reconciliation to annual statutory financial statements; and
 - statement of capital employed reconciliation to annual statutory financial statements.

The LRIC statements must be prepared with and without a mark-up. This mark-up relates to the recovery of fixed common and joint costs, discussed in Section 8.7 of these guidelines.

Pro-formas of these reports are included in Appendix B. Detailed reports, applicable to different classes of Operator are included in the Detailed Requirements.

3.2 Timing

Regulatory Financial Statements must be prepared and submitted to the Authority on an annual basis. They must be audited and submitted to the Authority within six months of the Operator's financial year-end.

Accounting Separation Principles

4 ACCOUNTING SEPARATION PRINCIPLES

For accounting separation purposes, accounts should be prepared on a Fully Allocated Cost basis, whereby all the revenues, costs, assets and liabilities are allocated to segments according to the principles set out below. Operators must ensure that their accounting separation methodology adheres to the following principles:

- causality;
- objectivity;
- consistency;
- transparency; and
- sampling.

4.1 Causality

Revenues, costs, assets and liabilities must be attributed to cost pools on the basis of how those cost pools cause the revenues to be earned, costs to be incurred or the assets to be acquired or liabilities to be incurred.

Where it is not possible to attribute revenues, costs, assets and liabilities in accordance with the preceding paragraph, the attribution must be such as to reasonably present the revenues, costs, assets and liabilities accounted for by the segments, and to present a reasonable comparison between the segments.

4.2 Objectivity

The attribution must be objective and not intended to benefit either the Operator or any other Operator, Business or service.

4.3 Consistency

There must be consistency of treatment from year to year. Where there are material changes to the basis and method of revenue, cost, asset or liability attributions, the Operator must restate those parts of the previous year's Regulatory Financial Statements affected by the changes, to the extent that prior period financial and non-financial data is available.

4.4 Transparency

The attribution methods used must be transparent. Revenues, costs, assets and liabilities attributed to cost pools must be traceable back to their source in the Operators' accounting records.

4.5 Sampling

Where sampling is used to derive the attribution of revenues, costs, assets and liabilities, it must be based either on generally accepted statistical techniques or other methods that should result in the reasonable attribution of revenues, costs, assets and liabilities.

Attribution Methodology

5 ATTRIBUTION METHODOLOGY

5.1 Introduction

This section describes the attribution methodologies that Operators should use to allocate fully their revenues, costs, assets and liabilities to the Regulated and Unregulated Segment, Businesses and services.

The purpose of accounting separation is to provide an analysis of information derived from financial records to reflect, as closely as possible, the performance of different segments of the business, as if they were operating as separate businesses. The aim of accounting separation is to assist in ensuring that charges are cost based, transparent and non-discriminatory.

The fundamental principle of the attribution process is the principle of causality. Each item of revenue, cost and capital employed recorded in the Operator's financial records should be attributed to the activities and components which make up the separate segments, based on the principles set out in Section 4.

5.2 Definition of Relevant Revenues, Costs, Assets and Liabilities

The objective of the accounting separation process is to prepare income statements, up to profit before interest and taxation, and statements of capital employed for relevant segments.

Therefore, the following income statement items are not subject to allocation and need not be reported:

- interest charges;
- corporate tax charges; and
- extraordinary items.

Capital employed comprises:

- non current assets;
- current assets;
- non current liabilities; and
- current liabilities;

less:

- long term interest-bearing borrowings; and
- long term interest-bearing borrowings, maturing within 12 months.

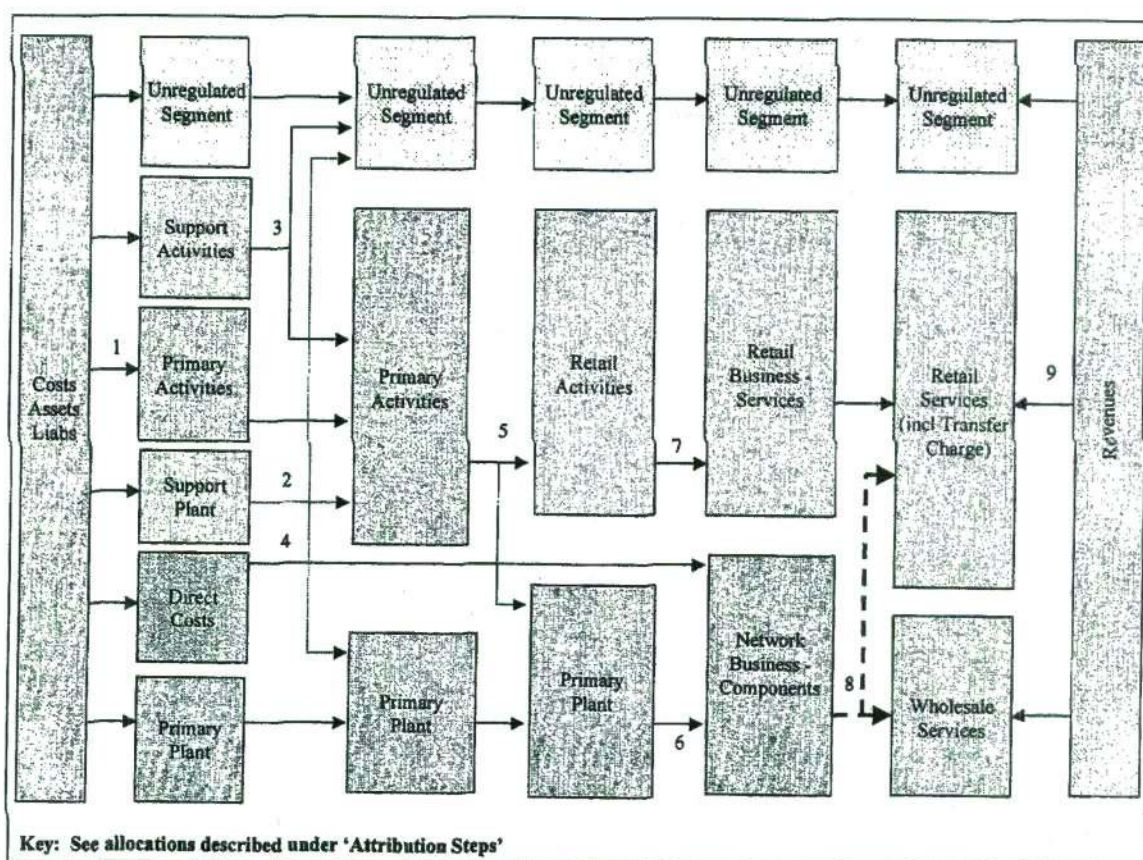
Attribution Methodology

5.3 Methodology Overview

The high level process which should be used to attribute revenues, costs, assets and liabilities to cost pools is illustrated in the diagram below. Operators may adopt a more detailed process, however it must conform to these basic principles.

The Detailed Requirements provide guidelines for detailed attribution methodologies. Operators are required to specify the detailed methodologies that they adopt, based on their respective network configurations, operating practices and information capabilities, and must describe them in their Procedures Manuals.

Figure 2: Overview of Accounting Separation Methodology



The logic behind this approach is that the Retail Business and Network Business are disaggregated into services and components respectively, which are visible both before and after transfer charges from the Network Business.

The attribution approach is a tiered attribution process beginning with the identification of directly attributable costs and progressively attributing indirect costs on the basis of cost driver relationships.

Attribution Methodology

5.4 Cost Categorisation

Each cost item falls into one of the following categories:

- directly attributable costs;
- indirectly attributable costs; and
- unattributable costs.

The categorisation of costs in this way provides the basis on which to attribute costs to services.

5.4.1 Directly Attributable Costs

Directly attributable costs are those costs that can be directly and unambiguously related to a single cost pool.

The following may be examples of directly attributable costs:

- wages and salaries of directory enquiries staff which can be allocated directly to the directory enquiries network component; and
- service-specific software development costs which can be directly allocated to the service in question.

5.4.2 Indirectly Attributable Costs

Indirectly attributable costs are those costs that can be related to cost pools on a causal, non-arbitrary basis. Such costs should be allocated to the relevant segment using an appropriate cost driver. For example, network electricity costs may be allocated to primary plant on the basis of electricity consumption.

5.4.3 Unattributable Costs

Unattributable costs are those costs for which no direct or independent causal method of apportionment can be identified. It is therefore not possible to allocate these costs to segments on a non-arbitrary basis. While it is accepted that a significant proportion of Operators' costs are joint and common, the application of rigorous cost allocation methods may be expected to reduce substantially the proportion of the costs that are truly unattributable. A reasonable allocation method should be adopted. For example, the chief executive officer's salary costs may be allocated to other activities based on the total costs of those activities.

Attribution Methodology

5.5 Cost Pool Groups

The following categories of cost pools exist:

Table 1: Cost Pool Groups

Cost Pool Group	Description
Initial Cost Pool Groups	
Unregulated Segment	As previously defined
Support Activities	All other costs which cannot be directly attributed to plant or primary activities, such as human resource management, financial control and other corporate overheads.
Primary Activities	The costs and capital employed relating to primary activities, for example, switch maintenance.
Support Plant	Other network and non-network infrastructure and capital, such as power plant and plant testing equipment.
Direct Costs	Costs associated directly with the delivery of specific services, for example, payments to overseas administrators for terminating international calls.
Primary Plant	The costs and capital employed relating to network infrastructure, such as switches and lines.
Subsequent Cost Pool Groups	
Retail Activities	Costs, revenues and capital employed relating to retail activities, such as sales and marketing.
Retail Business – Services	Costs, revenues and capital employed relating to the Retail Business, split into services. The sum of this cost pool group represents the Retail Business before transfer charges from the Network Business.
Network Business – Components	Costs, revenues and capital employed relating to the Network Business, split into network components, which represent costs that can be clearly attributed to services. For example, the traffic sensitive element of a switch component.
Retail Services	Revenues, costs and capital employed of the Retail Business after transfer charges from the Network Business.
Wholesale Services	Revenues, costs and capital employed associated with the delivery of wholesale services.

Attribution Methodology

5.6 Attribution Steps

The broad attribution steps are as follows:

- (1) All costs, assets and liabilities recorded in the Operator's financial records are allocated to the six major initial cost pool groups described above. Once this step has been performed, the contents of each of the cost pools are allocated to other cost pools on a common basis (i.e. regardless of the accounts that are contained in a cost pool).
- (2) Support plant cost pools are apportioned to primary plant cost pools, primary activities or the Unregulated Segment using the most reasonable cost driver available. For example, power plant may be attributed to switch and transmission equipment using power load factors.
- (3) Support activity costs are indirectly attributed to primary activities and the Unregulated Segment using the most reasonable cost driver available. For example, human resource costs may be attributed to primary activities using the number of staff performing each of the activities as the cost driver.
- (4) Direct costs are allocated directly to Network Business components. For example, payphone card costs will be allocated to the payphone network component.
- (5) Primary activity costs are allocated to retail activities and primary plant. For example, switch maintenance costs will be allocated to local and trunk switches.
- (6) Primary plant costs are allocated to Network Business components. Network Business components represent cost pools that can be clearly attributed to services. For example, local switches may be divided into call sensitive and line sensitive elements. Call sensitive costs are allocated to services on the basis of call duration and line sensitive costs are allocated directly to access rental services.
- (7) Retail activity cost pools are attributed to Retail Business services based on the most relevant and reasonable cost driver available. For example, billing costs may be attributed to services based on the number of calls made for each service.
- (8) Network Business component cost pools are allocated to the retail services and to wholesale services, based typically on usage. The allocation of Network Business component costs to retail services represents a transfer charge between the Businesses and is discussed in detail below.
- (9) Revenues are allocated to retail services and wholesale services.

Clearly, a more complex set of interrelationships than depicted in Figure 2 may exist. For example, support plant may drive the costs of a support activity. Furthermore, support activities will drive the costs of other support activities. In addition, costs can be attributed to the Unregulated Segment at any stage of the allocation process.

It is expected that revenues from the provision of retail and wholesale services will be recorded in Operators' accounts at a detailed enough level to enable direct allocation to services. Where revenues are not sufficiently unbundled to allow direct allocation, they should be attributed using the causation principle.

Operating costs and capital employed are drawn from accounting records. Allocation guidelines for material groups of revenues, operating costs, assets and liabilities are set out in the Detailed Requirements.

Attribution Methodology

Spare capacity, resulting from economies in provisioning for current and future network plant and equipment needs, is to be allocated to activities in proportion to the existing level of working facilities (e.g. circuits, lines, etc.) of plant and equipment. If spare capacity is provided for a specific purpose, it should be allocated to the specific service to which it relates. Redundant capacity should be written down to its economic value.

Guidelines for detailed allocation methodologies are described in the Detailed Requirements.

5.7 Transfer Charging Principles

Transfer charges from the Network Business to the Retail Business relating to the provision of network services are a feature of the Regulatory Financial Statements structure. These transfer charges are based on costs including a return on capital employed and are relevant for both the wholesale charges made to other Operators and to the regulated Operator's own downstream Retail Business.

The explicit reporting of imputed transfer charges to the Retail Business for use of network services on the same basis as those made by the Network Business to other Operators is central to the demonstration of non-discrimination and the absence of predatory pricing.

This is most easily illustrated with an example. Suppose for TelCo Ltd, that the Network Business consists of two network components, switching and transmission, which it sells to its own Retail Business to deliver end-to-end telephone calls and to another Operator to terminate calls on customers connected to TelCo Ltd's network.

Assume that the volumes of end-to-end TelCo Ltd calls and interconnection calls are as shown in the table below.

Table 2: Example – service volumes and route factors

Network Business- TelCo Ltd

SERVICE VOLUMES AND ROUTE FACTORS

	Minutes	Route factors	
		Switching	Transmission
TelCo retail call	1,000,000	2	1
Interconnection - call termination	250,000	1	1
Total - route factored volume		2,250,000	1,250,000

Also suppose that network component costs (switching and transmission) are as shown in the illustrative statement of network costs given below.

Attribution Methodology

Table 3: Example – statement of network component costs

Network Business- TelCo Ltd

STATEMENT OF COSTS INCLUDING CCA ADJUSTMENTS

For the year ended ...	Operating costs Rand	Capital employed Rand	Cost of capital %	Capital costs Rand	Total operating & capital costs Rand	Route factored unit volume Minutes	Average cost Cents
Switching	1,000	100,000	10%	10,000	11,000	2,250,000	0.4889
Transmission	750	50,000	10%	5,000	5,750	1,250,000	0.4600
Total	1,750	150,000		15,000	16,750		

Component operating costs and capital employed are used together with an exogenously defined cost of capital to determine the total economic cost of each network component. This is then divided by the route factored component volumes to give an average unit cost of network components.

The average unit costs of network components, service route factors and service volumes can then be combined to calculate the unit service costs. This is illustrated in the table below.

Table 4: Example – statement of network service costs

Network Business- TelCo Ltd

NETWORK SERVICE COSTS

For the year ended ...	Switching	Transmission	Average Network Service Cost Cents	Minutes	Value Rand
Average component cost - Cents	0.4889	0.4600			
Route factors					
TelCo retail call	2	1	1.4378	1,000,000	14,378
Interconnection - call termination	1	1	0.9489	250,000	2,372
Total					16,750

As indicated in the table above, the transfer charge to TelCo Retail Business would be R 14,378 and the equivalent charge for interconnection would be R 2,372.

By this method, the Regulatory Financial Statements provide an explicit demonstration of equivalent treatment between all sales from the Network Business, whether to the company's downstream Retail Business or to another Operator.

Attribution Methodology

5.8 Return on Capital Employed

The calculation of transfer charges as detailed above requires that the Operator makes an assessment of its cost of capital.

The cost of capital of a company is the return that the company must earn on its operating assets to reward investors for the risks they take. It is calculated by estimating the cost of each source of funds and weighting them to form the weighted average cost of capital ("WACC") as follows:

$$\begin{aligned} \text{WACC} = & \text{Proportion of Equity} \times \text{Cost of Equity} \\ & + \text{Proportion of Debt} \times \text{Cost of Debt} \times (1 - \text{Tax Rate}) \end{aligned}$$

It is the WACC that should be used to determine the transfer charge from the Network Business. Operators should estimate the pre-tax WACC, which is relevant for determining transfer charges.

The Operator must provide the Authority with information detailing the methods, values and source of all variables used in WACC calculations, including any assumptions made. The Authority reserves the right to require amendment to the WACC applied by Operators. The Authority may only require such amendment to the WACC if done so in writing, supported by evidence and calculations of its own estimate of the Operator's WACC or elements thereof.

Methods and issues to be considered for the calculation of WACC are described in Appendix C. In the absence of compelling evidence in support of an alternative method, which must be provided to and agreed by the Authority, Operators should adopt the capital asset pricing model ("CAPM") for the estimation of cost of equity.

General Accounting Principles and Policies

6 GENERAL ACCOUNTING PRINCIPLES AND POLICIES

6.1 Overview

This section sets out the fundamental accounting principles and concepts to be adopted by Operators.

6.2 Basis of Accounting

All financial transactions must be reported in South African Rand.

6.3 Accounting Policies

Regulatory Financial Statements must employ the same accounting policies used for the preparation of statutory financial statements, together with the principles of accounting separation (Sections 4 and 5), current cost accounting (Section 7) and long run incremental costing (Section 8) set out in these guidelines.

In general, the Authority expects that Operators' statutory financial statements will be based upon Generally Accepted Accounting Practice in the Republic of South Africa ("SA GAAP").

In the absence of a Statement of Accounting Practice under SA GAAP, the Authority expects Operators to adopt the relevant International Accounting Standards Committee standard.

All accounting policies and bases adopted by Operators in the preparation of Regulatory Financial Statements must be described in their Procedures Manuals.

To the extent that Operators adopt accounting policies that differ from the above, Operators must prominently disclose the deviation from SA GAAP or IAS, and the reason for such deviation, in their Procedures Manuals.

6.4 Affiliate Transactions

The purpose of prescribing accounting treatment for Affiliate transactions is to ensure that all business transactions with Affiliates are identified, disclosed and treated at an arm's length value.

Affiliates include corporations or business enterprises that are:

- members of the same group of companies as the Corporate Entity, including subsidiaries, joint venture partners, joint venture companies and other similar arrangements, and the group's associated companies over which the Corporate Entity's ultimate shareholder (where the ultimate shareholder excludes the Government) can exert significant influence; and
- companies outside the group of companies of which the Corporate Entity is a member, over which the Corporate Entity's ultimate shareholder (where the ultimate shareholder excludes the Government) can exert significant influence.

6.4.1 Receipt and Provision of Services

Services that are received by the Corporate Entity from an Affiliate, or charged by the Corporate Entity to an Affiliate, must be valued at the prevailing market price. Where a market price is not readily available, Operators must state the basis used in their Procedures Manuals.

General Accounting Principles and Policies

6.4.2 Asset Transfers

Asset transfers between the Corporate Entity and Affiliates must be valued at fair market value. In the absence of a market for the asset, net book value may be used.

6.4.3 Documentation

All material Affiliate transactions must be documented in the Operators' Procedures Manuals, as follows:

- the party with whom the transaction occurs;
- the type of transaction;
- the bases of recording the transactions in the accounting ledgers; and
- the bases of revaluing transactions.

Current Cost Accounting Policies

7 CURRENT COST ACCOUNTING POLICIES

7.1 Overview

This section describes the principles and methodologies to be followed for the preparation of Regulatory Financial Statements on a current cost basis. CCA is devised as a method of accounting in times of changing prices, as it takes into account changing costs and values, and is also required as a proxy for calculating forward looking LRICs of an efficient Operator.

7.2 Basis of Preparation of Current Cost Financial Statements

There are two alternative approaches to CCA, namely financial capital maintenance ("FCM") and operating capital maintenance ("OCM"):

- OCM considers the operating capability of the company. This approach requires the company to have as much operating capability, or productive capacity, at the end of the period as at the beginning of the period; and
- FCM considers the financial capital of the company is maintained in current price terms. Capital is assumed to be maintained if shareholders' funds at the end of the period are maintained in real terms at the same level as at the beginning of the period.

Under FCM, all adjustments to asset values are reflected in the income statement. Under OCM, only current cost depreciation for the year is reflected in the income statement.

Operators should adopt the FCM convention.

7.2.1 FCM Adjustments

Under the FCM convention, assets are restated to reflect their value to the business, which is usually equivalent to their net current replacement cost ("NRC"). Provision is made in the income statement for the effect of property, plant and equipment revaluations and general price changes on the value of shareholders funds, although this latter item should not be apportioned to the individual segments and therefore need not be calculated.

7.3 Principles of Valuation of Property, Plant and Equipment

Assets should be stated in the statement of capital employed at their value to the business, which is the lower of their economic value or their NRC. The NRC is generally derived from the asset's gross replacement cost ("GRC") which is the current purchase price of an identical new asset or the cost of a modern equivalent asset ("MEA") with the same service potential, adjusted to reflect its remaining life.

Different valuation methods may be employed in the current cost financial statements for different technology types, as described below.

Current Cost Accounting Policies

7.3.1 Existing Technology

Where an asset is being revalued on a direct replacement basis its replacement cost is usually assessed either by indexation or by absolute valuation. Factors that should be considered in the choice of method include the following:

- (1) **Indexation:** This is an appropriate method when there has been little technological change in the asset category and all the direct costs associated with bringing the asset into service would be incurred if it were to be replaced today. NRC is derived using *indexation of the historical net book values*.
- (2) **Absolute valuation:** In using the indexation method there may be difficulties in establishing appropriate indices and hence it may be more accurate and reliable to use physical volumes and unit prices to derive an absolute valuation.

Where indexation is used, the index used should be an asset specific index. Where a specific index cannot be obtained, a more general index may be used as a proxy. Operators should identify the source of the indices that they have adopted in their Procedures Manuals.

Absolute valuations are calculated as "volume times unit price". Unit prices should be based on supplier prices, adjusted for normal volume discounts where appropriate.

Adjustments will be required to include labour and overhead costs associated with bringing the asset into service. Operators should state the rationale for any adjustments made to unit prices in their Procedures Manuals.

7.3.2 Modern Equivalent Asset

For asset categories where the underlying technologies have changed significantly, existing assets would not be replaced in an identical form. In such cases replacement cost should be based on the cost of an MEA, that is the cost of a modern asset with similar service potential.

In practice, the rate at which modern assets can be introduced is limited by practical constraints, such as manufacturing capacity and lead times. The technologies requiring the modern equivalent valuation approach should be derived from a forecast of installed technology to be in place within the Operators' planning timeframes. Where an asset is being revalued on a modern equivalent basis its replacement cost is usually assessed by absolute valuation.

As stated above, if there are material differences in operating costs between the MEA and the existing asset, the valuation of the MEA is adjusted to reflect these. There may be differences in the lives of the assets, their maintenance costs over their whole lives, or in their output and functionality.

The MEA valuation method should be used where underlying technologies have changed significantly and existing assets would not be replaced in identical form. In line with the scorched node assumption, this assumes no changes to existing network topography, but changes in technology at each network node or link.

Examples of where the MEA approach should be used are:

- analogue switches (versus digital);
- copper (versus fibre); and
- PDH technology (versus SDH).

Operators should state for which classes of asset an MEA valuation has been adopted, together with any price adjustments to reflect functionality differences of MEAs.

Current Cost Accounting Policies

7.3.3 Low Value/Short Life

Where an asset has a relatively low value, it may be accounted for at its historical cost and is not revalued. Similarly where the life of an asset is relatively short, such that there is unlikely to be a significant difference between the cost of the asset at the date of acquisition and its GRC, the asset need not be revalued.

7.4 Calculation of CCA Adjustments

The following adjustments are required for CCA:

- supplementary depreciation;
- holding gains and losses; and
- adjustments to shareholders funds.

7.4.1 Supplementary Depreciation

Supplementary depreciation is the difference between historical cost depreciation and the current cost depreciation charge, and should be charged against profits in the income statement.

Current cost depreciation for the year is calculated on the basis of the new asset valuations and economic lives. This ensures that the current cost of property, plant and equipment consumed during the year is charged against revenue. For each asset, or group of assets, the depreciation charge, (assuming straight - line depreciation) can be derived by dividing the GRC by the asset life.

7.4.2 Holding Gains and Losses

Holding gains and losses are defined as the change in GRC, less the change in historic replacement cost and backlog depreciation.

7.4.3 Adjustments to Shareholders' Funds

The effect of general inflation on shareholders' funds is taken into account through an adjustment to shareholders' funds, determined by multiplying the opening value of shareholders' funds by the change in the index of general price inflation for the period. This should not be allocated to services and need not therefore be calculated.

Current Cost Accounting Policies

7.4.4 Illustration of CCA Asset Adjustments

The example below illustrates the calculation of supplementary depreciation and holding gains and losses for an asset whose replacement cost rises by 5% per annum with an economic life of four years:

Table 5: Illustration of CCA Adjustments

Year	Historic Cost			Current Cost				CCA Adjustments	
	Cost	Dep'n	Net Book Value	GRC	CCA Dep'n	Backlog Dep'n	NRC	Supplementary Dep'n	Holding Gain / (Loss)
0	10,000	-	10,000	10,000	-	-	10,000	-	-
1	10,000	2,500	7,500	10,500	2,625	-	7,875	125	500
2	10,000	2,500	5,000	11,025	2,756	131	5,513	256	394
3	10,000	2,500	2,500	11,576	2,894	276	2,894	394	275
4	10,000	2,500	-	12,155	3,039	434	-	539	145

Long Run Incremental Cost Policies

8 LONG RUN INCREMENTAL COST POLICIES

8.1 Overview

This section describes the principles and methodologies to be followed for the preparation of LRIC statements.

8.2 LRIC Definition

LRIC is the cost of producing a defined additional increment of output in the long run given that some level of output (which may be zero) is already produced. Long run is that period of time over which all inputs are variable.

In principle there is no restriction on the definition of the increment to be measured. An increment may be:

- a small change in the volume of a particular service;
- the addition of a new service; or
- the addition of a whole group of services.

The first definition of the increment is equivalent to a measurable version of marginal cost, that is the cost associated with providing a very small, literally infinitesimal change in output. The second definition applies to a single service. The final definition relates to a group or family of related services.

In general, average or unit incremental costs are likely to increase with the size of the increment. This is because the larger an increment is, the more likely it is that the increment will encompass fixed costs which are uniquely and specifically associated with the increment.

In the long run the incremental cost of adding an additional increment of output I given that a level of output O is already produced is equivalent to the cost that would be avoided by reducing output from $O+I$ by the increment of output I .

Long Run Incremental Cost Policies

8.3 Increments to be Measured

The specification of the appropriate increments to be measured is an important feature of any incremental cost model. The choice of increments is, to a great extent, determined by the application to which the incremental costs are to be put.

In this context, namely the potential use of LRIC as a basis for setting prices for interconnection services, the following considerations are relevant:

- the resulting interconnection prices should be non-discriminatory – the price paid for an equivalent interconnection service should be the same whether purchased by another Operator or the downstream Retail Business of the interconnection provider;
- the level at which long run incremental costs are calculated should facilitate the transparent construction of different interconnection service prices and reflect the differential consumption of network components by different interconnection services; and
- economies of scale and scope associated with all required inputs for the provision of interconnection services should be shared equitably among all services that make use of those inputs.

The specification of the appropriate increments to be measured will be different for different classes of Operator. Consequently, the specification and definition of increments is included in the Detailed Requirements.

8.4 LRIC Modelling Approaches

There are two alternative approaches to the calculation of LRIC: a top-down approach and a bottom-up approach.

8.4.1 Top-Down Incremental Cost Approach

A top-down modelling approach analyses the actual costs of a company, which may be adjusted to reflect forward looking valuations and an alternative level of efficiency, to determine the extent to which they are incremental or otherwise, with respect to a defined set of increments.

8.4.2 Bottom-Up Incremental Cost Approach

A bottom-up model estimates the cost of a particular increment of output by examining the equipment and activities required to produce that output and the costs of that quantity of equipment and that level of activity. In addition, the model includes the costs of overhead capital requirements, such as accommodation and the direct and indirect operating costs of maintaining the equipment and running the business.

Long Run Incremental Cost Policies

8.4.3 Incremental Cost Approaches Compared

The top-down approach has the advantage of being reconcilable to observed costs (adjusted as necessary for asset revaluations and inefficiencies) which themselves reflect the reality and complexity of providing services in the real world.

The bottom-up approach has the advantage of making explicit all the assumptions and dimensioning criteria of building a modern network.

The Authority recognises the benefits of both approaches but considers that the top-down approach is more appropriate in the context of regulatory reporting since it provides for reconciliation to the actual costs and financial statements of Operators. Operators should therefore adopt a top-down approach.

8.5 Description of Top-Down Incremental Cost Approach

In broad terms the following steps can be identified under a top-down approach:

- adjustment of actual costs to reflect valuation changes and efficiency adjustments as required;
- categorisation of costs, assets and liabilities of the Corporate Entity into a number of homogenous cost categories defined with respect to a common causal cost driver;
- identification of the increments using the cost categories and quantification of the cost driver volumes of individual increments;
- specification of the relationship between the level of costs and the volume of the cost driver;
- identification of interdependencies between cost drivers; and
- development of a model incorporating the above.

8.5.1 Adjustments to Actual Costs

Before LRIC can be calculated, the actual costs of the Operator must be adjusted to reflect the forward-looking costs of an efficient operator. Two classes of adjustment are required:

- current cost accounting (CCA) adjustments; and
- efficiency adjustments.

8.5.1.1 *Current cost accounting adjustments*

The policies and procedures to be applied for CCA adjustments are described in Section 7.

Long Run Incremental Cost Policies

8.5.1.2 *Efficiency adjustments*

To the extent that an Operator is inefficient it should make all necessary adjustments to exclude the costs of inefficiency from LRIC statements. Costs that arise as a result of local social and economic factors or Licence conditions (for example, universal service obligations) should be taken into account in the calculation of any efficiency adjustment.

In making an assessment of the level of inefficiency that may exist, the Authority considers that an appropriate target level of efficiency would be given by the median efficiency of the upper quintile of a suitable sample of comparable telecommunications operators.

The Authority may request evidence to ensure that efficiency adjustments have been incorporated and may require that the Operator modify the level of efficiency adjustments. The Authority may only request modification to the level of efficiency adjustments where the Authority does so in writing and includes its estimate of the level of efficiency adjustment required, supported by detailed calculations.

The amount of any efficiency adjustment made by Operators must be disclosed.

8.5.2 **Categorisation of Costs, Assets and Liabilities**

The LRIC model should use the values derived from the current cost accounting separation system as the cost data input. This will facilitate reconciliation between the LRIC model and the current cost accounting separation system. These costs must however, first be grouped (or split) into cost categories of similar cost type and identical cost drivers.

Operators must maintain a reconciliation of cost categories to their chart of accounts.

The following considerations are relevant to the specification of LRIC cost categories:

- the materiality of the LRIC cost category;
- transparency and the need to aid understanding of the modelling process;
- support for reporting requirements;
- the homogeneity of the LRIC cost category from the perspective of having a common cost driver. In general, it is preferable to define LRIC cost categories such that each has a single cost driver (though this may not always be possible); and
- the need to support interdependencies between cost categories and cost volume relationships.

8.5.3 **Quantification of Cost Driver Volumes by Increment**

It is necessary to determine how cost driver volumes are associated with increments. In general, the current cost accounting separation system will have already done this.

Long Run Incremental Cost Policies

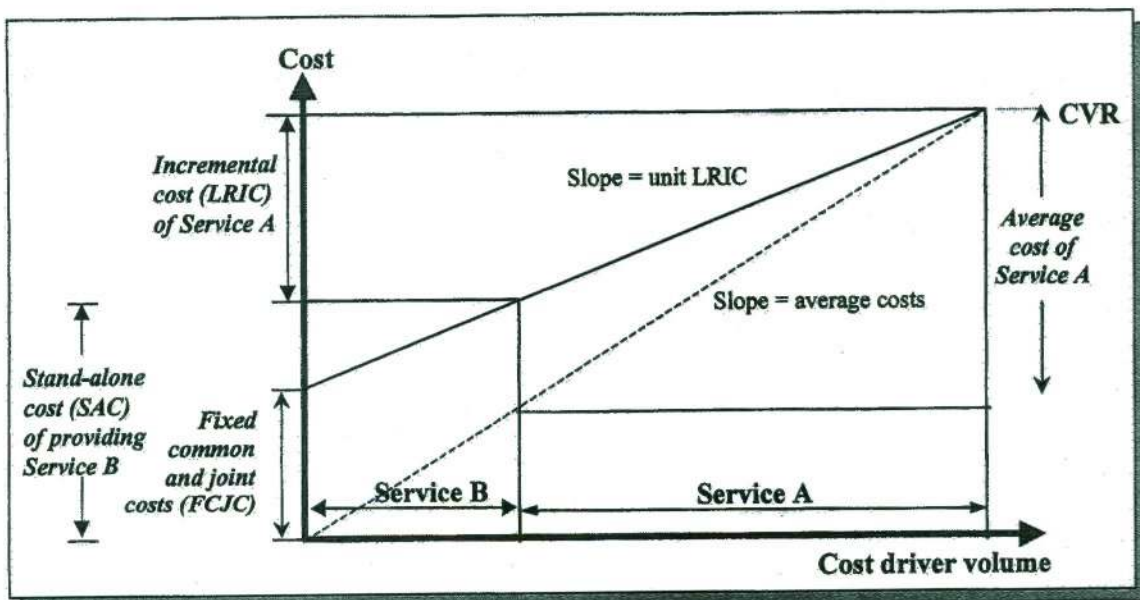
8.5.4 Specification of the Relationship Between the Level of Costs and the Volume of the Cost Driver

The specification of cost volume relationships ("CVR") is key to the calculation of incremental costs. In simple terms, a CVR is that curve which describes how costs change as the volume of the cost driver changes. The costs associated with an increment can be of several types:

- variable with respect to an increment being measured;
- fixed but increment specific; and
- fixed costs spanning several increments, i.e. fixed common costs.

An example of a CVR is shown in the diagram below.

Figure 3 – Example of a Cost Volume Relationship



In the diagram above, the intercept on the Y-axis represents the fixed costs, and the slope of the CVR indicates the extent to which economies of scale or scope are present. If the CVR is not linear, it indicates that these economies are increasing with volume.

In the absence of any fixed common or joint costs (i.e. economies of scope) or economies of scale (i.e. declining marginal costs) a current cost accounting separation system adopting the same cost causality based apportionment would produce the same numbers as LRIC.

However, when economies of scope or scale are present, Fully Allocated Cost and LRIC are not equal. A CVR is then required to calculate LRIC.

Long Run Incremental Cost Policies

8.5.4.1 *Specification of CVRs*

There are three main methods for calculating CVRs:

- engineering simulation models;
- statistical surveys; and
- interviews and field research.

8.5.4.1.1 *Engineering simulation models*

Engineering modelling describes an asset's costs on the basis of underlying unit costs of component parts. The steps in the process are as follows:

- break down the asset into its component parts. For example, switch investments could be broken down into its central processing unit components, switch ports, switch block and various control systems;
- define the dimensioning algorithms which describe how many components of each type are required to satisfy a given level of demand (cost driver volume);
- define the engineering and component modularity constraints which describes how the various components can be combined together;
- obtain a unit cost for each of the elements;
- populate the model with data reflecting all relevant assets in the network;
- apply the relevant unit costs to each component asset to calculate the gross investment cost of the asset; and
- flex the identified cost driver to derive a CVR.

8.5.4.1.2 *Statistical surveys*

In certain circumstances surveys and samples may be used when complete population data to derive a CVR is not available within the organisation. This requires that observations can be made of both cost driver volume and the level of cost. Statistical techniques such as regression analysis can then be used to estimate the relationship between costs and volume drivers. Data to support such analyses may be internal or external to the organisation.

8.5.4.1.3 *Interviews and field research*

Interviews may be used to identify where in a CVR profile a structural change in the relationship may take place. As an example, interviews with the human resources department may show that recruitment services could be delivered cost-effectively on an outsourced basis for low volumes (where volume will be headcount or number of recruitment staff) since this will reflect low fixed and high variable costs. However, at higher volumes, it may become efficient to internalise the recruitment process since the higher volumes can justify the fixed costs, and lower variable costs occur. From such a survey, a multi-modal relationship may be defined for recruitment services.

Long Run Incremental Cost Policies

For each CVR, Operators must document in their Procedures Manuals:

- the cost categories to which they relate;
- the cost driver;
- the CVR type;
- the rationale for the CVR type chosen;
- the proposed method of derivation;
- the data requirements; and
- the data sources.

A template for the documentation of CVRs is included as Appendix D.

8.5.4.2 *Increment specific fixed costs*

The fixed costs of a cost category are represented by the intercept on the y-axis. The fixed cost may be common across two or more increments or it may be specific to one increment. It is essential that a distinction is made between increment specific fixed costs and fixed common costs. Increment specific fixed costs can be defined as those fixed costs that can be uniquely associated with an increment, independent of other increments and will form part of the incremental cost of the increment.

8.5.5 Cost Category Dependencies

Cost drivers within a LRIC model can be classified as:

- exogenous drivers – cost drivers that are directly related to the final service output. For example, tandem switch costs are driven by the final demand for switch minutes which is a function of call service demand; or
- endogenous drivers – cost drivers that are themselves dependent on either an exogenous cost driver or another endogenous driver. For example, the demand for switch buildings is a function of the need to house switches. Quantification of how endogenous cost drivers are associated with increments requires that all the cost drivers on which the endogenous cost driver depends be calculated first.

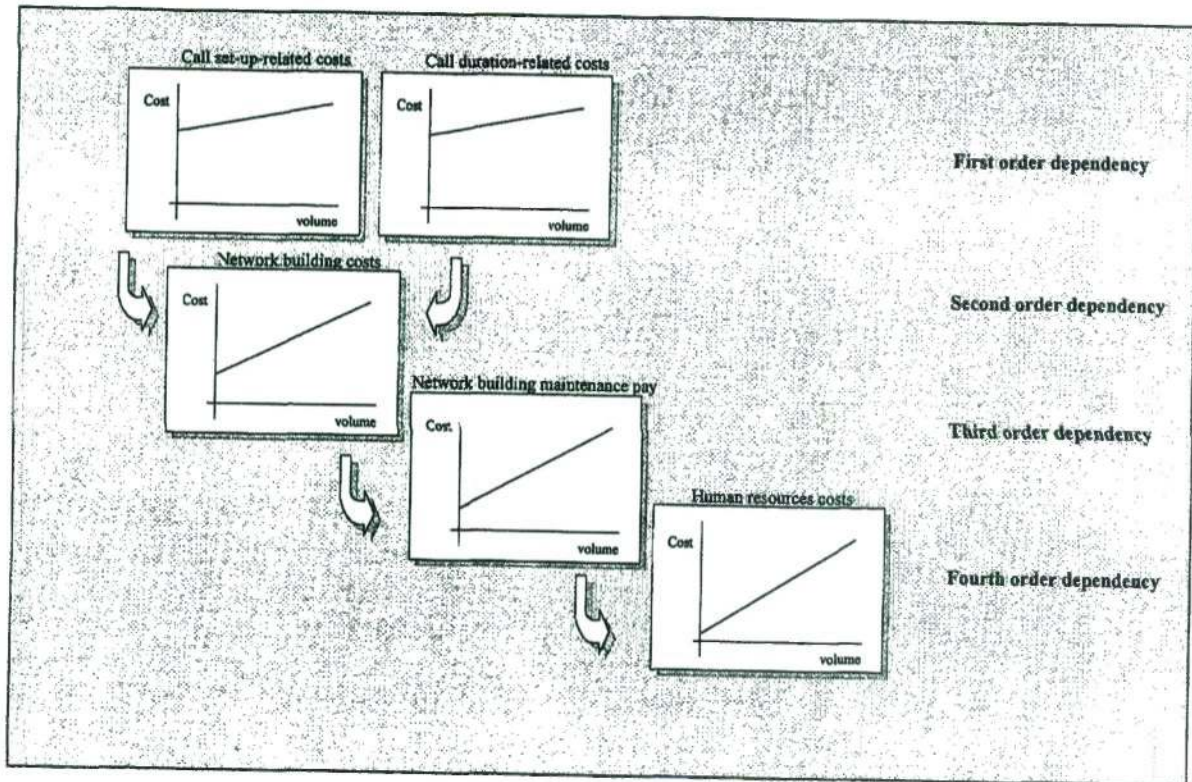
Cost category dependencies show how cost drivers of some cost categories link to exogenous volumes and thereby use independent cost volume relationships whilst other cost categories use cost driver volumes dependent on the cost output of one or more CVRs and are thereby dependent.

It is necessary to define hierarchies of relationships for LRIC calculation purposes. This allows for those costs that are driven by data external to the model to be allocated first, with successive interdependencies being rippled through the model. The guiding principle is to define those costs which are specific to network assets at the top of the hierarchy, since these are generally the costs which are driven by exogenous variables such as call and line volumes. Following this it is possible to define, at successive layers of the chain, those costs that are increasingly general in terms of their relationships with network assets. The dependency hierarchy must be defined in such a way as to ensure there is no circularity in the dependencies.

For example, it would not make sense for human resource costs to be related to call minutes directly. However, a relationship can be established by constructing a chain of dependencies (dependency hierarchy) as illustrated below.

Long Run Incremental Cost Policies

Figure 4 – Illustration of Cost Category Dependencies



This approach allows for the definition of inter-dependencies based ultimately upon the network components that will be used as the building blocks to derive incremental costs for Interconnect/wholesale services.

Firstly, those costs that are specific to network assets at the 'top' of the hierarchy should be identified. As discussed above, these costs are generally driven by exogenous variables such as call and line volumes. Therefore, those costs associated with a specific increment – as driven by the volume of the relevant cost driver – are identified at the first level of dependency.

Following this, the allocation of second-order dependencies can occur. Using the above example, the costs of network building can be calculated for the relevant increment, since this may be defined as being dependent upon the network building floor space.

Third-order dependencies can then be defined. In this instance, network building maintenance pay will be driven by network building costs.

Following this, it is possible to identify fourth-order dependencies, an example being costs associated with central functions such as legal or human resources. These are a function of the size of the organisation and, as such, might be driven by pay. These costs cannot be spread until all pay is spread to the relevant cost categories at levels one, two and three in the hierarchy.

This process continues such that a complete 'dependency hierarchy' is defined within a LRIC model. Operators should define the dependency hierarchy they have adopted in their Procedures Manuals.

Long Run Incremental Cost Policies

8.6 LRIC Assumptions

The construction of a model necessitates the making of assumptions. The following high level assumptions are relevant to the construction of a LRIC model for Telecommunications Services:

- scorched node or scorched earth;
- thinning;
- service levels; and
- mix.

8.6.1 Scorched Node or Scorched Earth

The scorched node assumption assumes the current network structure (in terms of the number and location of network nodes) is maintained, even with lower traffic levels. Conversely, the scorched earth assumption assumes that the whole network could be redesigned from scratch with the optimal number and location of nodes required to service any given level of volume.

The assumption of scorched node is preferable to scorched earth for a number of reasons:

- assuming a different network architecture is extremely complex and may introduce considerable arbitrariness;
- to a considerable extent the number and location of nodes is a function of geography and demography; and
- the option to redesign the network under a scorched earth assumption is not economically feasible in practice since all Operators' investment decisions are constrained to some extent by their past investment decisions.

Accordingly, LRIC should be calculated based upon the principle of scorched node rather than scorched earth.

8.6.2 Thinning

Consistent with the scorched node assumption, it should be assumed that existing transmission routes are required to provide connectivity between network nodes, independent of the scale of activity. The amount and type of equipment housed in transmission routes will alter with the scale of activity.

8.6.3 Service Levels

There is a trade off between the cost of service and the offered grade of service. It may be assumed that existing grade of service levels are maintained.

8.6.4 Mix

The mix of demand characteristics that impact on the volume axis of a cost function should be assumed to be constant with respect to scale. For example, the average call duration can be assumed to be the same, irrespective of the number of calls passing over the network.

All assumptions made in the estimation of incremental costs must be comprehensively documented by Operators in their Procedures Manual.

Long Run Incremental Cost Policies

8.7 Recovery of Fixed Common and Joint Costs

Where there are economies of scope, as indicated by the presence of fixed common and/or joint costs between the defined increments, average LRIC will be lower than average total cost. If interconnection prices were then set equal to LRIC it would follow that the fixed common and joint costs would not be recovered. Failure to provide an Operator with the ability to recover all of its costs would not provide adequate incentives for Operators to invest in new network services and infrastructure.

It is therefore important that if LRIC is used as the basis for setting interconnection prices, provision for the recovery of fixed common and joint costs should be made.

8.7.1 Options for Recovery of Costs

There are various methods of recovering fixed common and joint costs. Two of the most commonly accepted approaches are considered here. The first is Ramsey pricing and the second is equi-proportionate mark-ups.

8.7.1.1 *Ramsey pricing*

The Ramsey pricing approach is based on welfare economic theory and is designed to allow for the recovery of fixed common and joint costs in such a way as to minimise the welfare loss resulting from prices set greater than marginal cost.

A Ramsey mark-up requires that in the absence of any cross elasticities the recovery of fixed common costs should be in inverse proportion to the price elasticity. The relevant price elasticities are the market elasticities and not the firm elasticities.

The estimation of the necessary elasticities and cross price elasticities is a complex and inexact process. As a consequence this method has not been widely adopted for regulatory rate setting.

8.7.1.2 *Equi-proportionate mark-up (EPMU)*

EPMU is a pragmatic approach designed to simplify the problem of recovering fixed common and joint costs in an unbiased way. EPMU requires that fixed common costs be recovered pro rata to incremental costs. The mark-up should be applied at the same level of granularity at which the incremental costs were calculated, i.e. at the level of LRIC cost category.

In the absence of compelling evidence in support of an alternative method, which must be provided to and approved by the Authority, Operators should adopt an EPMU approach.

Chart of Accounts

9 CHART OF ACCOUNTS

9.1 Overview

The Chart of Accounts ("COA") defines the minimum level of account detail that Operators must maintain, although it is recognised that Operators should maintain a level of detail in their own chart of accounts which supports the detailed allocation of costs to services.

This document sets out the high level COA framework applicable to all Operators. The Detailed Requirements define the requirements for different classes of Operator.

Operators must maintain a translation of their own chart of accounts and subsidiary ledgers (for example, fixed asset registers) to the COA. They may use the COA for accounting separation purposes, however where their own general ledger is maintained at a greater level of detail, there is no requirement to do so.

9.2 Framework

The structure of the COA is based on the usual asset, liability, equity, revenue and expense structure typical of any chart of accounts. It has a multilevel structure that allows for ease of account identification and account grouping and permits the classification of financial information in a manner that is suited to telecommunications organisations.

9.2.1 Revenue Accounts

Revenues are categorised along a service perspective, which supports the level of disaggregation required for ad hoc investigations and regulatory reporting.

9.2.2 Property, Plant and Equipment Accounts

Property, plant and equipment accounts are classified broadly as follows:

- network plant and equipment;
- land and buildings; and
- non-network plant and equipment, such as fixtures and fittings, information technology, and motor vehicles.

The categorisation of network equipment will vary for different classes of Operator, and is considered in detail in the Detailed Requirements.

9.2.3 Operating Expense Accounts

Operating expenses are categorised as follows:

- operational expenses, such as customer management and network management;
- business support costs, such as human resource costs; and
- depreciation, lease and rental costs.

Chart of Accounts

9.2.4 Major Account Categories

Major account categories are illustrated as follows:

Table 6: Account Categories

Account Category		
Class of Account	Major	Minor
Balance Sheet	1. Non-current assets	1. Property, plant and equipment 2. Investment properties 3. Intangible assets 4. Interest in subsidiaries 5. Investments in associates 6. Other investments 7. Deferred taxation 8. Non-current receivables
	2. Current assets	1. Inventories and assets held for resale 2. Receivables and prepayments 3. Marketable securities 4. Cash and cash equivalents
	3. Capital and reserves	1. Share capital 2. Share premium 3. Retained earnings 4. Revaluation and other reserves
	4. Non-current liabilities	1. Interest-bearing borrowings 2. Provisions for liabilities and charges 3. Deferred income 4. Deferred tax liabilities 5. Other non-current liabilities
	5. Current liabilities	1. Trade and other payables 2. Current tax liabilities 3. Current portion of borrowings 4. Bank overdrafts 5. Provisions for liabilities and charges 6. Deferred income 7. Dividends declared

Chart of Accounts

Account Category		
Class of Account	Major	Minor
Income Statement	6. Revenue	1. Retail revenue 2. Wholesale revenue 3. Miscellaneous revenue
	7. Direct Costs	1. Discounts and incentives 2. Interconnection/wholesale costs 3. Other direct costs
	8. Operating Expenses	1. Operational expenses 2. Business support costs 3. Depreciation, lease and rentals
	9. Non-operating items	1. Income from investments 2. Finance charges 3. Taxation 4. Extraordinary items 5. Dividends

9.2.5 Subsidiary Ledgers

Operators should maintain subsidiary ledgers for property, plant and equipment as support information to the COA.

Property, plant and equipment records should reveal the description, location, original cost, accumulated depreciation, estimated economic useful life and date of purchase of individual assets, except where the identification of individual assets and analysis of costs would not reasonably result in more accurate asset and cost reporting.

Administrative Framework

10 ADMINISTRATIVE FRAMEWORK

10.1 Audit of Regulatory Financial Statements

As indicated in Section 3, Regulatory Financial Statements must be prepared and audited on an annual basis. They must be submitted to the Authority within six months of the Operator's financial year-end.

10.2 Audit and Compliance

An Operator must appoint an independent auditor to audit the annual Regulatory Financial Statements. The independent auditor must be a member of the Public Accountants and Auditors Board or the Auditor General.

10.2.1 Appointment of Independent Auditor

The Operator appoints the auditor and the responsibility for completion of the audit lies with the Operator. However, the Authority may request meetings with the auditor to discuss the auditor's work, and the Operator shall ensure that this is provided for in the letter of engagement or contract with its auditor. Where the Authority wishes to meet with the auditor, adequate notice shall be given to the Operator in writing detailing the matters to be discussed. The Operator may attend such meetings.

If the auditor has issued a qualified report on the Regulatory Financial Statements in question, the Authority may appoint its own auditor to reperform the audit, or may request that the Operator's auditor undertake a re-audit, in whole or in part.

10.2.2 Scope of Audit

The Operator must grant the auditor, or any person authorised by him, the right of access at any reasonable time to the accounting and other records of the Operator, and to require from an officer of the Operator such information and explanation as he/she desires for the reasonable purposes of the audit.

10.2.3 Audit Approach

The regulatory audit is to be conducted in accordance with the South African Institute of Chartered Accountants' Generally Accepted Auditing Standards.

Materiality is to be set by the independent auditor in the context of each segment reported on to the Authority.

10.2.4 Cost of Audit

All audit costs, including costs of a re-audit, whether the auditor is appointed by the Operator or by the Authority, are to be borne by the Operator.

Administrative Framework

10.2.5 Audit Opinion

The auditor shall, in his auditor's report, express an opinion on the following:

- whether the Regulatory Financial Statements for the year ended have been properly prepared in accordance with the COA/CAM and the Operator's Procedures Manual (that has been approved by the Authority); and
- whether all changes to the Operator's Procedures Manual that materially affect the Regulatory Financial Statements for the year ended have been filed with, and approved by, the Authority.

The auditor shall also state in his auditor's report:

- any material non-compliance with the COA/CAM or Operator's Procedures Manual pertaining to the Regulatory Financial Statements, and the impact thereof; and
- any other deficiency or failure, or such other matters arising from the audit as he/she considers should be reported, in respect of matters relating to the Regulatory Financial Statements. These include, but are not limited to, failure to obtain from the Operator all information and explanations that he/she requires and the Corporate Entity audited statutory financial statements being subject to a qualification by the auditor.

The auditor's report must be attached to the Regulatory Financial Statements for the purposes of submission to the Authority.

Meetings between the Operator, the auditor and the Authority may be held at the request of the Authority to discuss the auditor's work. The purpose of these meetings is to review the audit and the presentation and content of the Operator's Regulatory Financial Statements including:

- the scope of the audit;
- the audit plan and programme used to execute the audit;
- any summary of major audit conclusions and audit differences;
- a review of the statutory management letter only if the Operator receives a qualified audit opinion on the statutory financial statements; and
- discussion of the resolution of issues raised, either by the Authority, the Operator and/or its auditors, with respect to findings on prior audits or with respect to Regulatory Financial Statements previously submitted to the Authority.

Administrative Framework

10.3 Procedures Manual

10.3.1 Preparation and Maintenance

Each Operator must document the methodologies and processes it has implemented to comply with the COA/CAM in a Procedures Manual, which must be approved by the Authority. The draft Procedures Manual must be submitted to the Authority at least six months prior to the deadline for the submission of the Regulatory Financial Statements. The draft Procedures Manual must be submitted each year where there has been any change to the Procedures Manual.

The Authority shall review the Operator's draft Procedures Manual and may request that the Operator make presentations pertaining to the Procedures Manual. The Authority shall provide written notification to the Operator of its approval or non-approval, reasons for non-approval and requests for modification within two months of submission of the Procedures Manual. The Operator must take all reasonable steps to implement the changes requested by the Authority for inclusion in the submission of the Regulatory Financial Statements.

The final Procedures Manual must be submitted to the Authority together with the audited Regulatory Financial Statements. Material changes between the draft Procedures Manual and the final Procedures Manual must be highlighted prominently for the Authority's attention.

The Procedures Manual must be sufficiently detailed to enable the Authority or an external auditor to understand the methodologies that have been used in preparing the Regulatory Financial Statements. The Procedures Manual must also enable both the Authority and the auditor to verify that:

- the methodologies actually applied by the Operators are consistent with those that are defined in their respective Procedures Manuals, and
- the results from the application of the methodologies are reconcilable to Corporate Entity statutory financial statements.

10.3.2 Procedures Manual Content

The Procedures Manual must contain a comprehensive and complete written statement of the policies, principles and methodologies that the Operator will follow in preparing its Regulatory Financial Statements required pursuant to the COA/CAM. It should include audit control procedures and trails used in data preparation. In particular, the Procedures Manual should include the following information:

Administrative Framework

Table 7: Procedures Manual Content

Introduction	
Group Structure	List of the entities covered by the Regulatory Financial Statements and the relationships between the entities, where the information relates to more than one entity.
Organisational Overview	Background information on the structure of the Operator's organisation, business activities/broad lines of business and network architecture.
Accounting and Operational Systems	Details of the financial, accounting and operational systems used by the reporting organisation for the capture and generation of the Regulatory Financial Statements (overview of functionality).
Accounting Separation	
Segments	A list of segments and a mapping to tariffs lodged for specific services that fall within each segment.
Accounting Separation Systems	Overview of accounting separation systems used, including inputs, outputs and functionality of system.
Allocation Overview	An overview of the revenue, cost, asset and liability allocations adopted by the Operators.
Detailed Allocations	The detailed allocations adopted by Operators and a mapping of the general ledger to the initial cost pools. Details of any studies, surveys or models that are used for allocation purposes. The Procedures Manual should provide worked examples of all of the allocation methods that are used including sample size, frequency of sampling, sampling method, etc.
Transfer Charging Methodology	Details of the methodology for calculating transfer charges to the Retail Business.
WACC calculation	Details of the assumptions made, methods, values and sources of all variables used to calculate the WACC.

Administrative Framework

General Accounting Principles And Policies	
Accounting Principles and Policies	Details of the accounting policies used by the Operator in preparing the Regulatory Financial Statements. For property, plant and equipment, provide procedures outlining preparation of information on asset lives, labour, overhead, interest capitalisation and depreciation methods.
Deviations from SA GAAP or IAS	If the accounting policies and bases used in the preparation of the Regulatory Financial Statements differ from SA GAAP or IAS, full disclosure of the policies and bases adopted should be prominently disclosed here. Operators should also document the reason for adopting accounting policies or bases that differ from SA GAAP or IAS.
Affiliate Transaction Disclosures	The party with whom the transaction occurs, the type of transaction, the bases of recording the transactions in the accounting ledgers and the bases of revaluing transactions.
Current Cost Accounting	
CCA Policies and Methodologies	CCA policies, valuation method adopted for each category of asset, sources of data for valuation purposes, adjustments to unit prices, price adjustments to reflect functionality differences of MEA.
CCA Systems	Overview of systems used for CCA purposes.
Long Run Incremental Costing	
LRIC Policies and Methodologies	LRIC policies and assumptions. Specification of cost categories and mapping to general ledger, cost drivers, CVR type, rationale for CVR type chosen, proposed method of derivation, data requirements, data sources and dependency hierarchy.
LRIC systems	Overview of system used to calculate LRIC.
Chart Of Accounts	
Chart of Accounts	Overview of the structure of the general ledger, a translation between the general ledger and sub ledgers and the COA. Procedures for handling additions, deletions and changes to the COA.
Administrative Framework	
Procedures Manual Maintenance Procedures	Details of the procedures for maintenance and updating of the Procedures Manual and associated internal controls.
Glossary	Definition of terms used in the Procedures Manual.

Administrative Framework

10.3.3 Modification of Procedures Manual

Any changes to the Procedures Manual proposed by an Operator must be filed with the Authority and are subject to the Authority's approval prior to implementation. Proposed changes should be accompanied by a statement of the reasons for the change and estimates of the financial impact of the proposed change, where relevant and reasonably practicable, should be estimated.

The Authority may request the Operator to provide further information for the purposes of its consideration of the proposed change. The Authority will consider the proposed changes and notify the Operator of its approval or non-approval within two months of having received notification of the proposed change. Where the Authority does not approve the proposed change, the Authority must provide written explanations for such non-approval.

10.4 Modifications to the COA/CAM

The COA/CAM will be updated periodically to take account of changes such as:

- changes in the Authority's regulatory responsibilities and information requirements;
- changes in the Operator's business practices;
- introduction of new services and technology; and
- the need to refine the defined methodologies unless it will impose an unreasonable burden on the Authority or the Operators.

Either the Authority or an Operator may initiate changes. The Operator may submit proposed changes to the Authority whenever the need for a change becomes apparent, together with reasons for the change.

Where the Authority agrees to a change proposed by an Operator, or the Authority decides that a change to the COA/CAM is required, changes will be effected under Section 96 of the Telecommunications Act 103 of 1996, as amended.

Implementation of changes should be effected as soon as is practicable, and included within the Regulatory Financial Statements in the year in which the change is made, unless the Authority determines otherwise.

10.5 Prior Year Restatement

Where there has been a change to the Operator's Procedures Manual or COA/CAM that has a material effect on prior year numbers, the prior year numbers in the Regulatory Financial Statements must be restated. Restatement is not required if the change does not have a material impact on the Regulatory Financial Statements or the data/information required to restate the prior year numbers is not available. Such fact and the reasons therefore must be stated in the Regulatory Financial Statements.

Administrative Framework

10.6 Records

Operators must maintain detailed records supporting any submissions to the Authority. These records should be kept for a minimum of five years and should be readily accessible for examination by the Authority or its representative, should the need arise.

10.7 Confidentiality

The confidentiality clause contained in Section 93 of the Telecommunications Act 103 of 1996, as amended, shall apply.

Appendices

APPENDICES**Appendix A – Glossary of Terms**

CCA	Current Cost Accounting
COA/CAM	Chart of Accounts/Cost Allocation Manual
COA	Chart of Accounts
CVR	Cost Volume Relationship
FCM	Financial Capital Maintenance
GRC	Gross Replacement Cost
IAS	International Accounting Standard
LRIC	Long Run Incremental Costing
MCTS	Mobile Cellular Telecommunication Services
MEA	Mean Equivalent Asset
NRC	Net Current Replacement Cost
OCM	Operating Capital Maintenance
PDH	Plesiochronous digital hierarchy
PSTS	Public Switched Telecommunications Service
PTN	Private Telecommunications Network
SA GAAP	Generally Accepted Accounting Practice in the Republic of South Africa
SDH	Synchronous Digital Hierarchy
VAN	Value Added Network
WACC	Weighted Average Cost of Capital

Appendices

Appendix B – Pro-forma Reports

The following reports are set out in this appendix:

Report	Appendix
Current Cost Income Statements	B1
Current Cost Statements of Capital Employed	B2
Statement of Network Component Costs	B3
Statement of Network Service Costs	B4
Statement of Costs on a LRIC Basis (with and without a mark-up);	B5
Income Statement Reconciliation to Annual Statutory Financial Statements	B6
Statement of Capital Employed Reconciliation to Annual Statutory Financial Statements	B7

Certain reports include the terms 'Return on Capital Employed' and 'Return on Revenue'. Return on capital employed is calculated as:

- $\text{Return} / \text{Capital employed}$

Return on revenue is calculated as:

- $\text{Return} / \text{Revenue}$

The latter is used because the nature of transfer charges will mean that the Retail Business will have an exceptionally high, and therefore almost meaningless, return on capital employed. It is therefore more appropriate to use the return on revenue measure to assess the performance of the Retail Business.

Appendices

Appendix B1 – Current Cost Income Statements by Segment

CORPORATE ENTITY

SEGMENT: XXXXX

CURRENT COST INCOME STATEMENT for the year ended ...		
	Current Year R'000	Prior Year R'000
Revenue	x	x
Operating costs		
Costs	x	x
CCA Adjustments		
Holding (gain) / loss and other adjustments	x	x
Supplementary depreciation	x	x
Total operating costs	x	x
Return	x	x
RETURN ON CAPITAL EMPLOYED for the year ended ...		
	Current Year %	Prior Year %
Return on capital employed	x	x
Return on revenue	x	x

Appendices

Appendix B2 – Current Cost Statements of Capital Employed by Segment

CORPORATE ENTITY

SEGMENT: XXXXX

CURRENT COST STATEMENT OF CAPITAL EMPLOYED at ...		
	Current Year R'000	Prior Year R'000
Assets		
Non-current assets		
Property, plant and equipment	X	X
Intangible assets	X	X
Interest in subsidiaries	X	X
Investments in associates	X	X
Other investments	X	X
Deferred taxation	X	X
Non-current receivables	X	X
	<u>X</u>	<u>X</u>
Current assets		
Inventories and assets held for resale	X	X
Receivables and prepayments	X	X
Marketable securities	X	X
Cash and cash equivalents	X	X
	<u>X</u>	<u>X</u>
Total assets	<u>X</u>	<u>X</u>
Liabilities		
Non-current liabilities		
Provisions for liabilities and charges	X	X
Deferred income	X	X
Deferred tax liabilities	X	X
Other non-current liabilities	X	X
	<u>X</u>	<u>X</u>
Current liabilities		
Trade and other payables	X	X
Current tax liabilities	X	X
Bank overdrafts	X	X
Provisions for liabilities and charges	X	X
Deferred income	X	X
Dividends declared	X	X
	<u>X</u>	<u>X</u>
Total liabilities	<u>X</u>	<u>X</u>
Capital employed	<u>X</u>	<u>X</u>

Appendices

Appendix B3 –Statement of Network Component Costs

CORPORATE ENTITY

NETWORK BUSINESS

STATEMENT OF NETWORK COMPONENT COSTS
for the year ended ... (current year and prior year statements required)

	HCA operating costs R'000	Supplementary depreciation R'000	Holding gain and other CCA adjustments R'000	Total CCA operating costs R'000	CCA capital employed R'000	Applicable rate of return on capital %	Capital costs R'000	Total of operating and capital costs R'000
Network Components								
Component 1	x	x	x	x	x	x	x	x
Component 2	x	x	x	x	x	x	x	x
Component 3	x	x	x	x	x	x	x	x
Component 4	x	x	x	x	x	x	x	x
Component 5	x	x	x	x	x	x	x	x
Component 6	x	x	x	x	x	x	x	x
etc.	x	x	x	x	x	x	x	x
Total	x	x	x	x	x	-	x	x
Other Components								
Other component 1	x	x	x	x	x	x	x	x
Other component 2	x	x	x	x	x	x	x	x
Other component 3	x	x	x	x	x	x	x	x
Other component 4	x	x	x	x	x	x	x	x
Other component 5	x	x	x	x	x	x	x	x
Other component 6	x	x	x	x	x	x	x	x
etc.	x	x	x	x	x	x	x	x
Total	x	x	x	x	x	-	x	x

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Appendix B5 – Statement of Costs on a Long Run Incremental Cost Basis (with and without a markup)

CORPORATE ENTITY

NETWORK BUSINESS

STATEMENT OF COSTS ON A LONG RUN INCREMENTAL COST BASIS (WITH AND WITHOUT A MARKUP)
for the year ended ... (current year and prior year statements required)

	Operating costs R'000	Capital employed R'000	Applicable rate of return on capital %	Capital costs R'000	Total of operating and capital costs R'000	Volume unit	Average cost per min/unit on an incremental cost basis R'000
Network Components							
Component 1	x	x	x	x	x	x	x
Component 2	x	x	x	x	x	x	x
Component 3	x	x	x	x	x	x	x
Component 4	x	x	x	x	x	x	x
Component 5	x	x	x	x	x	x	x
Component 6	x	x	x	x	x	x	x
etc.	x	x	x	x	x	x	x
Other Components							
Other component 1	x	x	x	x	x	x	x
Other component 2	x	x	x	x	x	x	x
Other component 3	x	x	x	x	x	x	x
Other component 4	x	x	x	x	x	x	x
Other component 5	x	x	x	x	x	x	x
Other component 6	x	x	x	x	x	x	x
etc.	x	x	x	x	x	x	x
Total	x	x	-	x	x	-	-

Appendices

Appendix B6 – Income Statement Reconciliation to Annual Statutory Financial Statements

CORPORATE ENTITY

RECONCILIATION STATEMENT

CURRENT COST INCOME STATEMENT

for the year ended ... (current year and prior year reconciliations required)

	Revenue R'000	Operating costs R'000	Return R'000
Segment			
Network Business	x	x	x
Retail Business	x	x	x
Regulated	x	x	x
Unregulated	x	x	x
Total	x	x	x
Adjustments	x	x	x
Elimination of inter-segment revenues and costs	x	x	x
CCA adjustments			
Supplementary depreciation	-	x	x
Holding (gains)/losses	-	x	x
Corporate Entity's share of profits of associates and joint ventures	-	x	x
Interest charges	-	x	x
Minority interests	-	x	x
Extraordinary items	-	x	x
Other (specify)	-	x	x
As in the statutory financial statements	x	x	x

Appendices

Appendix B7 – Statement of Capital Employed Reconciliation to Annual Statutory Financial Statements

CORPORATE ENTITY

RECONCILIATION STATEMENT

CURRENT COST STATEMENT OF CAPITAL EMPLOYED at ...

	Current Year R'000	Prior Year R'000
Segment		
Network Business	x	x
Retail Business	x	x
Regulated	x	x
Unregulated	x	x
Total	x	x
Adjustments	x	x
CCA adjustments	x	x
Interest bearing borrowings	x	x
Minority interests	x	x
Other (specify)	x	x
As in the statutory financial statements	x	x

Appendices

Appendix C – Discussion of Methods for Calculating WACC

The concept of cost of capital

The cost of capital of a company is the return that the company must earn on its operating assets to reward investors for the risks they take. It is calculated by estimating the cost of each source of funds and weighting them to form the weighted average cost of capital (WACC):

$$\text{WACC} = \text{Proportion of Equity} \times \text{Cost of Equity} \\ + \text{Proportion of Debt} \times \text{Cost of Debt} \times (1 - \text{Tax Rate})$$

If there are other types of financing used by the company, such as preference shares, then these are included in the WACC in the same way as debt and equity. The WACC estimated in this way is always net of corporate taxes. It is also usually in nominal terms. Discussed below are the issues that arise in switching it to a pre-tax rate.

Estimation of the inputs to the WACC: overview

Each of the inputs to the WACC formula must be estimated. They are:

- the proportions of equity and debt;
- the cost of equity;
- the cost of debt; and
- the tax rate.

The proportions of debt and equity raise few issues. They must be estimated at market values because the WACC is a market opportunity rate. For equity this means calculating the market capitalisation and adding any minority interests. For firms without traded equity, it raises the issue of how to estimate the market value of equity. An even greater issue in such cases, however, is the estimation of the cost of equity. Often the WACC for the industry calculated from traded firms is used as an estimate for non-traded firms so these issues are side-stepped.

The proportion of debt should also be at market value. In principle, the debt of the firm should be revalued to allow for changes in the borrowing rate of the firm since the debt was issued. In practice, the book value of the debt is usually used. The restatement to market value usually makes little difference. The quantity of debt is the net amount of debt. Debt includes long-term and short-term debt and capitalised leases.

The cost of equity is the most controversial aspect of the WACC. It can be estimated in a variety of ways:

- the capital asset pricing model (CAPM);
- the arbitrage pricing theory model (APT);
- the dividend growth model (DGM); and
- the discounted cash flow return.

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Estimation of the cost of equity is discussed in detail below.

The cost of debt is less controversial. Usually the cost of debt is estimated by taking a riskless interest rate and adding a borrowing spread for the particular borrower:

$$\text{Cost of Debt} = \text{Riskless Interest Rate} + \text{Borrowing Spread}$$

The choices involved are:

- the maturity of the interest rate;
- the particular Government bond to use as a reference; and
- the estimation of the borrowing spread.

The riskless interest rate is taken to be the Government bond redemption yield. Usually the interest rate is chosen to have maturity equal to that of the cash flows that are being valued. For any maturity, however, there may be several Government bonds, so one is chosen that is the most liquid or the benchmark issue. The borrowing spread is estimated either from debt issues of the company trading in the market or by asking bankers what spread the company would pay for new borrowing. Some issues connected with the cost of debt are discussed below.

The tax rate is the rate of tax that is saved by having interest charges generated by borrowing. Usually this is taken to be the statutory corporate tax rate. For companies that are not currently paying taxes it is taken to be an effective tax rate calculated with reference to the date at which they will expect to resume paying taxes. The tax rate for the cost of capital calculation is not necessarily equal to the effective tax rate of the company measured by its relationship between accounting income and tax payments. For instance, the effective tax rate might be low because of special tax treatment of certain assets even though interest charges would still save the full statutory tax rate. In such a case the full statutory rate should be used in the WACC calculation.

The use of the tax rate in the WACC formula means that all the returns must be in nominal terms. The tax system works in nominal terms as it is the nominal interest rate that can be deducted for tax purposes.

Estimation of the cost of equity

The cost of equity can be calculated in a number of ways. The main methods used are:

- the capital asset pricing model (CAPM);
- the arbitrage pricing theory model (APT);
- the dividend growth model (DGM); and
- the discounted cash flow return.

Of these the CAPM is the most widely accepted and used.

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The capital asset pricing model (CAPM)

The CAPM estimates the cost of equity by:

$$\text{Cost of Equity} = \text{Riskless Interest Rate} + \text{Beta} \times \text{Market Risk Premium}$$

Estimation of each input requires choices.

The riskless interest rate

There is fairly general agreement that:

- the riskless rate should be matched to the maturity of the investment; and
- the riskless rate should be a current market rate.

Sometimes adjustments are made to the riskless interest rate before it is used in the CAPM. If the rate is a long-term rate then a bond market 'term premium' is sometimes subtracted before the rate is used. The logic of this is as follows. The market risk premium is estimated relative to a particular interest rate. For instance, the historical US market risk premium measured relative to the Treasury bill rate has been 9.2%. But returns to long-term bonds have been 1.8% greater than returns to T-Bills. So it would be double counting to add the 9.2% to the long-term rate. So some people subtract an estimate of the bond market premium from the interest rate before using it in the CAPM. This premium is usually 0.5%-1.5%. Others side step the issue by using an equity market premium measured relative to returns on long-term bonds.

The market risk premium

By far the most controversial area of cost of capital estimation is the market risk premium. To put the debate in context it is useful to review some simple capital market statistics. Table 8 shows the average return for the US in the period 1926-97 for four asset categories. These are the historical risk premia.

Table 8: US Historical Risk Premia

ASSET	AVERAGE RETURN	PREMIUM TO T-BILLS
Treasury Bills	3.8%	0.0%
Treasury Bonds	5.6%	1.8%
Equities	13.0%	9.2%
Small firm equities	17.7%	13.9%

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The return on equities has been 9.2% pa greater than the return on treasury bills and 7.4% pa greater than the return on treasury bonds. If the short-term interest rate is used in the CAPM then the relevant risk premium in this table is the 9.2% measured against T-bills. If the long-term rate is used then the relevant premium is the 7.4% against T-bonds. The return on treasury bonds has been 1.8% pa greater than the return on treasury bills. This is the bond market risk premium discussed earlier.

For use in the CAPM we need a forecast of how large the risk premium will be in the future rather than a measure of how large it has been in the past. There are three basic positions on the risk premium measured relative to the long-term interest rate:

- the historical market premium of about 7%;
- estimates of 5-6% based on historical premia adjusted for biases, or based on geometric means, or based on use of 'ex ante' data; and
- estimates of 2-4% based on surveys with undisclosed details, or based on a primitive use of the dividend growth model.

The use of the historical average of 7% as a forecast requires a belief that the past 80 years is, on average, a 'typical' period that will be repeated in the future. The reason for using such a long period of data is that shorter periods show huge fluctuations that it is difficult to believe are typical. So markets with a relatively short history of decent data present a problem.

People who fall into three camps use a slightly lower premium of 5-6%. One view is that the historical data should be adjusted for various biases. These include survival bias and what is called time variation in the risk premium. Another view is that the way that the averages are constructed in the above table is incorrect. The alternative procedure, called geometric averaging, gives estimates that are about 2% lower than the 7% arithmetic average. A third group that believes in a risk premium of about 5-6% does so on the base of 'ex ante' data. This includes surveys of investor expectations and the use of models like the dividend growth model that are discussed below.

To decide where one falls in this debate, one has to decide how much weight to place on the historical evidence as opposed to evidence from surveys. Surveys of investor expectations suffer from such issues as:

- do they give the most likely returns or the average return?
- what horizon are they for?
- are the survey participants representative?

These questions are sufficiently problematic that many people discount the results of such surveys. Even if one places little weight on the surveys, however, there is a growing body of evidence that the historical risk premia are too high for use as forecasts of the future.

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Estimation of beta

Beta is the measure of risk in the CAPM. It measures risk relative to the 'market portfolio', which is intended to represent the portfolio held by the shareholders of the firm. The risk it captures is only the 'systematic risk' related to the market. Other risk that is specific to companies or industries can be diversified away by shareholders. This distinction between systematic and diversifiable risk is particularly important because most people's intuitive notion of risk corresponds to a measure of variability or total risk, rather than systematic or beta risk.

Betas are usually estimated by running a statistical regression of the returns from the shares of a company on the returns on a market index. The main issues in the estimation of beta are:

- the choice of daily, monthly or some other interval of data;
- the choice of the estimation period;
- the choice of the index against which to measure beta;
- conversion of historical betas to forecasts of future betas;
- the exclusion of abnormal data; and
- the use of accounting data.

Datastream and Bloomberg use daily data to estimate their betas. Other services often use monthly data. The estimation period using daily data is often the latest year. With monthly data it is commonly five years. Daily data used over a short period has the merit of using recent data and gaining accuracy by using more frequent data. Monthly data used over a longer period has the merit of avoiding biases that might arise if the shares are thinly traded. Alternatively a thin trading correction can be made to the betas based on daily data.

Various procedures can be used to transform historical betas to optimal forecasts. These include Bayesian techniques (as used by London Business School Risk Measurement Service) and purely empirical techniques (as used by BARRA). In cases where there has been a significant change in the operations of the company, such as a large acquisition, care must be taken to adjust the historical beta for the effect of this before it is used as a forecast of the future.

Sometimes an unusual event has a large impact on betas. For instance, the 1987 market crash gave some very unusual beta estimates. In these cases, a choice has to be made as to whether this type of behaviour is likely to be repeated in the future. If it is not, then this data should have reduced weight in the beta estimation.

Given the many choices that are involved in estimating beta, many prefer the objectivity that is afforded by the use of standard services such as the London Business School Risk Measurement Service, Datastream or BARRA. Estimates from standard services such as these should always be used as benchmarks against which to judge other beta estimates. Even so, these services can give very different estimates for the same company. And if one includes the uncertainty introduced by the choice of market index, one is forced to admit that the estimation of beta is an imprecise art.

Appendices

Other methods for estimating the cost of equity

Arbitrage Pricing Theory (APT)

APT involves the idea that there are factors other than the beta that affect the cost of equity. The two most commonly used extra factors are the size of the company and the growth of the company. The growth factor is usually measured by the ratio of the market value of the equity to its book value. An example of the type of evidence that supports this view can be seen in Table 1 above. The returns to small US firms have been 4.7% pa greater than the returns to large firms. So some people add a small firm risk premium to the CAPM.

While APT offers a promising alternative to the CAPM in the long run, it is not yet sufficiently well developed to be a robust procedure for estimating the cost of equity. The use of APT involves so many choices that it is open to manipulation. Apart from size and growth, other factors that have been used are dividend yield and sensitivities to interest rates, inflation, exchange rates, and corporate bond spreads.

The Dividend Growth Model (DGM)

The DGM takes a completely different approach to the cost of equity. Rather than build it up as the sum of the interest rate and a risk premium, the estimate is the sum of the yield and the expected future growth rate:

$$\text{Cost of equity} = \text{Yield} + \text{Expected long term growth rate}$$

This can be used for an individual company to get an estimate of its cost of equity, or for the market as a whole to get an estimate of the market risk premium.

When the DGM is used for an individual company, the choices involved are:

- to use the dividend yield or the free cash flow yield of the shares; or
- to estimate the growth rate from earnings forecasts or from the return to equity of the company or by another method (e.g. a survey).

While the DGM is appealing in its simplicity, it requires the assumption that dividends will grow at a constant rate forever, and this is never true. In addition, it requires an estimate of the long-term growth rate for a company or for the market. Such estimates are extremely hard to obtain. So it is only used as a check on other methods.

The DGM applied to the market has, however, been influential in leading to lower estimates of the market risk premium. The argument here is that the aggregate market return must be equal to the yield on the market plus long-run GDP growth.

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The Discounted Cash Flow return (DCF return) method

Another method that is similar to the DGM with slightly more realistic assumptions is the DCF return method. This involves assuming that the share price of the company is equal to the present value of the future dividends or future free cash flow discounted at the cost of equity. A forecast of future dividends is made, and the cost of equity is solved from this equation given the current share price.

The main difference between this and the DGM is that the dividend or free cash flow forecast that is used is not constrained to have a constant growth rate forever. Short-term growth is often set equal to analysts' forecasts. This is then assumed to move over time to a long-term sustainable growth rate. In some cases, this long-term growth rate is set equal to the trend growth rate of the economy.

The DCF return method is superior to the DGM. It is a useful check on the cost of equity derived from the CAPM. It is not often used as the primary method of estimating the cost of equity.

Estimation of the cost of debt

There is little disagreement about the estimation of the cost of debt. It is usually estimated as the Government interest rate plus the borrowing spread of the company. The maturity of the debt used is matched to the horizon for the cost of capital, and a liquid Government benchmark is used. Alternatively it can be estimated directly from the yield on the company's traded debt, if it has any.

The impact of tax

Tax can enter the cost of capital calculation in four ways:

- the cost of debt is adjusted for the tax deductibility of interest in the WACC;
- if a pre-tax WACC is required, the after-tax WACC must be adjusted by the 'tax wedge' between post-tax and pre-tax returns;
- the interest rate in the CAPM is sometimes adjusted for tax; and
- as leverage changes, the tax position of the company changes, so the cost of capital may change.

The first of these is uncontroversial.

The second is not controversial in principle, but generates argument because various approximations are used. The correct way to make the adjustment from post-tax to pre-tax returns is to build a financial model of the firm that includes the actual tax rules that affect its assets. The relationship between post-tax and pre-tax returns that comes out of this model is then the correct adjustment to use. To avoid the effort of doing this a simpler procedure is often used. This is to gross up the post-tax return by the effective tax rate of the company. This is not necessarily correct, because the WACC refers to economic returns and the effective tax rate is computed from accounting returns.

The choice of the treatment of tax in the CAPM and the effect of leverage on the WACC are related. The standard way of implementing the CAPM is to use the riskless interest rate gross of all tax and to add a risk premium calculated from gross returns. The implication of this is that equity is relatively less tax efficient than debt. Debt achieves a tax saving for the company whereas equity does not. So the standard use of the CAPM is consistent with a WACC that falls as leverage rises. This is the so-called 'Miller-Modigliani' (MM) assumption. It is the standard assumption used in the US and is increasingly used in the UK.

Appendices

There are two other treatments of tax in the CAPM that are used. One is the so-called 'Miller' view. This assumes that leverage has no effect on the cost of capital. The treatment of tax in the CAPM that is consistent with this assumption is that the riskless interest rate should be taken net of the corporate tax rate before the risk premium is added. The risk premium that is added should be estimated relative to an interest rate that is net of the corporate tax rate. When this procedure is used it introduces another complexity. If the net interest rate is required, the appropriate benchmark bond should be one that is tax efficient at the assumed tax rate. So some people adjust their choice of benchmark bond in this way when using the Miller model.

A view that is intermediate between the two extremes of the Miller and the MM assumptions is sometimes used in countries with an imputation tax system. This is to use in the CAPM an interest rate net of the imputation tax rate. This approach implies that leverage changes the WACC by an amount that is proportional to the difference between the corporate tax rate and the imputation rate. Another alternative way of implementing the same view is to adjust for the imputation tax by reducing the tax wedge between post-tax and pre-tax returns by the imputation rate. This approach assumes that all profits are distributed as dividends and so is a very crude approximation.

Impact of capital structure

If leverage is increased, it has an effect on several components of the cost of capital:

- the proportion of debt rises;
- the beta of equity rises; and
- the cost of debt rises.

In perfect capital markets with no taxes all these effects offset each other and the WACC remains unchanged as leverage changes. This is the famous result of Miller and Modigliani (MM).

Although the basic thrust of the MM argument is widely accepted, there are several real world considerations that mean that the WACC does change with leverage. These are:

- taxes;
- costs of financial distress; and
- agency and information considerations.

The optimal amount of leverage is generally considered to involve a trade-off between these effects. In particular, there is a trade-off between the tax deduction from debt, which lowers the cost of capital, and the expected costs of financial distress, which raises it.

The size of the tax benefit to borrowing depends on the assumptions about tax rates discussed in the previous section. The typical assumption is the MM assumption. For that assumption the tax benefit to borrowing is relatively large. The implication is that firms should have high leverage ratios unless the potential for financial distress or the cost of financial distress is very great.

The other extreme assumption about taxes is the 'Miller' assumption, whereby the cost of equity is equal to the interest rate net of the corporate tax rate plus a risk premium. In this case, there is no tax advantage to corporate borrowing. The reason is that the tax advantage to debt at the corporate level is offset by a tax disadvantage at the investor level to give no net benefit. So the optimal amount of leverage could be quite low and is unlikely to be very high. Regardless of what it is, however, it will not make any difference to the cost of capital.

Appendices

Empirical estimates of the effect of leverage on value suggest that the truth lies somewhere between these two extremes. Nevertheless, it is common practice to calculate the WACC in a way that is based on the MM view and consistent with a large tax advantage to borrowing.

Combining WACCs from different companies

It is widely accepted that a better estimate of the cost of capital can be obtained by averaging estimates for several companies in an industry. Each individual estimate is subject to a large degree of error and this procedure tends to average out the errors. This procedure is also a way to estimate the cost of capital for companies without traded equity.

When this procedure is used, there are two possible correct ways of averaging. These are:

- calculate the WACC's of the individual companies, adjust these to eliminate the effect of leverage, then average; or
- estimate the equity betas of the companies, convert these to be asset betas, then average these and convert the result to a cost of capital.

The formula for calculating an asset beta that is most commonly used is:

$$\begin{aligned}\text{Asset beta} = & \text{Proportion of equity} \times \text{Equity beta} \\ & + \text{Proportion of debt} \times \text{Debt beta}\end{aligned}$$

The result of these calculations is a cost of capital for the industry that reflects zero leverage. The effect of the differing leverage of the companies in the industry has been eliminated before they are averaged. The result is called the 'all equity cost of capital'. This industry cost of capital can then be re-leveraged to any desired assumption about optimal leverage.

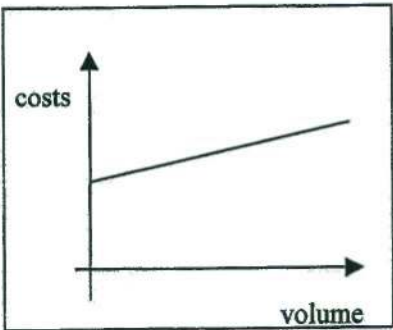
There are several important points about this procedure:

- the individual WACC's are calculated using the actual leverage of the companies as this is what is reflected in their estimated betas;
- it is incorrect to average equity betas because they reflect different degrees of leverage;
- it is incorrect to use the equity beta of one company in conjunction with the leverage of another; and
- for evaluation of future investments or returns the WACC should be adjusted to reflect an optimal degree of leverage.

The perspective taken by this approach is that the asset betas of the different companies in an industry reflect the same level of risk. They should, therefore, be equal. The equity betas of these firms reflect both this industry risk and the leverage of the firms during the period of the beta measurement. So the equity betas must first be corrected for the actual leverage of the firms before giving information that is, in principle, equal across the industry. To use this in a forward-looking calculation, the optimal leverage of the company under consideration must be then used to convert this to a cost of capital that reflects the optimal leverage. This is because the value of future flows should reflect an optimal leverage policy going forward.

Appendices

Appendix D – Cost Volume Relationship Documentation Template

CVR number	CV174
CVR name	Personnel and administration
Cost driver	Headcount (proxied by pay)
General form of CVR	
Rationale for form of CVR	The profile of staff is assumed to be constant over the full volume range. It is further assumed that a constant ratio of personnel and administration FTEs is maintained over the full cost volume range.
Method of derivation	Personnel department costs are driven by a combination of: staff numbers; the complexity of the personnel policies; the standard of service required from the personnel function by senior management; the technology used; and organisation structure. Most of the costs are driven by headcount, proxied by pay. The y-intercept is due to the non-headcount related cost drivers such as the complexity of personnel policies.
Data sources	
Comments	



INDEPENDENT COMMUNICATIONS AUTHORITY OF SOUTH AFRICA

CHART OF ACCOUNTS AND COST ALLOCATION MANUAL

**VOLUME 3 - DETAILED REQUIREMENTS FOR PUBLIC SWITCHED
TELECOMMUNICATION SERVICE LICENSEES**

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Introduction

1 INTRODUCTION

1.1 Background

Volume 3 of the Chart of Accounts/Cost Allocation Manual ("COA/CAM") expands on the broad accounting and regulatory reporting framework applicable to all Operators, as defined in Volume 1 – Regulatory Accounting Guidelines. Volume 3 applies to PSTS Licensees only. It should be read in conjunction with Volume 1.

1.2 Objectives of the Detailed Requirements

The objective of these Detailed Requirements is to set out a structured accounting and regulatory reporting framework for PSTS Licensees who are, or will be, subject to regulatory supervision by the Authority. The Detailed Requirements seek to ensure that PSTS Licensees provide information that allows the Authority to meet its regulatory objectives, as defined in Volume 1.

1.3 Applicability to Operators

The COA/CAM requirements shall apply in full to all Operators, unless determined otherwise by the Authority by notice in the Government Gazette.

The Authority may publish the list of Operators who are excluded from the requirements of the COA/CAM, or to whom the COA/CAM requirements shall apply in part, on issue of the COA/CAM and at least every two years thereafter. The Authority may publish additional notices where the need arises due to changing circumstances.

1.4 Effective Implementation Date of the COA/CAM

The first submission of Regulatory Financial Statements shall take place within six months after the first financial year end of the Operator, either following the date on which the COA/CAM becomes a regulation, or the date on which the Operator is no longer excluded from the requirements of the COA/CAM.

The Authority recognises that the effective date of implementation may place an onerous burden on Operators. The Authority shall therefore set out phased implementation reporting timeframes in writing to Operators, taking account of Operator circumstances.

1.5 Mandate

The Authority's legal mandate is set out in the Telecommunications Act 103 of 1996, as amended.

Introduction

1.6 Structure of the Detailed Requirements

These Detailed Requirements have been prepared within the overall context of the accounting and reporting requirements described in Volume 1.

The remainder of these Detailed Requirements are structured as follows:

- Section 2 describes the level of disaggregation required;
- Section 3 describes the reports that Operators must produce;
- Section 4 describes the detailed Chart of Accounts to which Operators must maintain a translation from their general ledger;
- Section 5 describes the attribution methodology guidelines which Operators should adopt; and
- Section 6 describes the long run incremental costing policies which Operators must adopt.

The Detailed Requirements have been developed to reflect the network architectures and operating practices of PSTS Licensees. The Detailed Requirements are expected to evolve over time to accommodate:

- changes in the Authority's ongoing information needs and regulatory responsibilities;
- changes in technology; and
- changes to Operators' businesses.

Each Operator must document the methodologies and processes it has implemented to comply with the Regulatory Accounting Guidelines and the Detailed Requirements in a Procedures Manual. The Procedures Manuals must be submitted for approval by the Authority.

Level of Disaggregation

2 LEVEL OF DISAGGREGATION

2.1 Overview

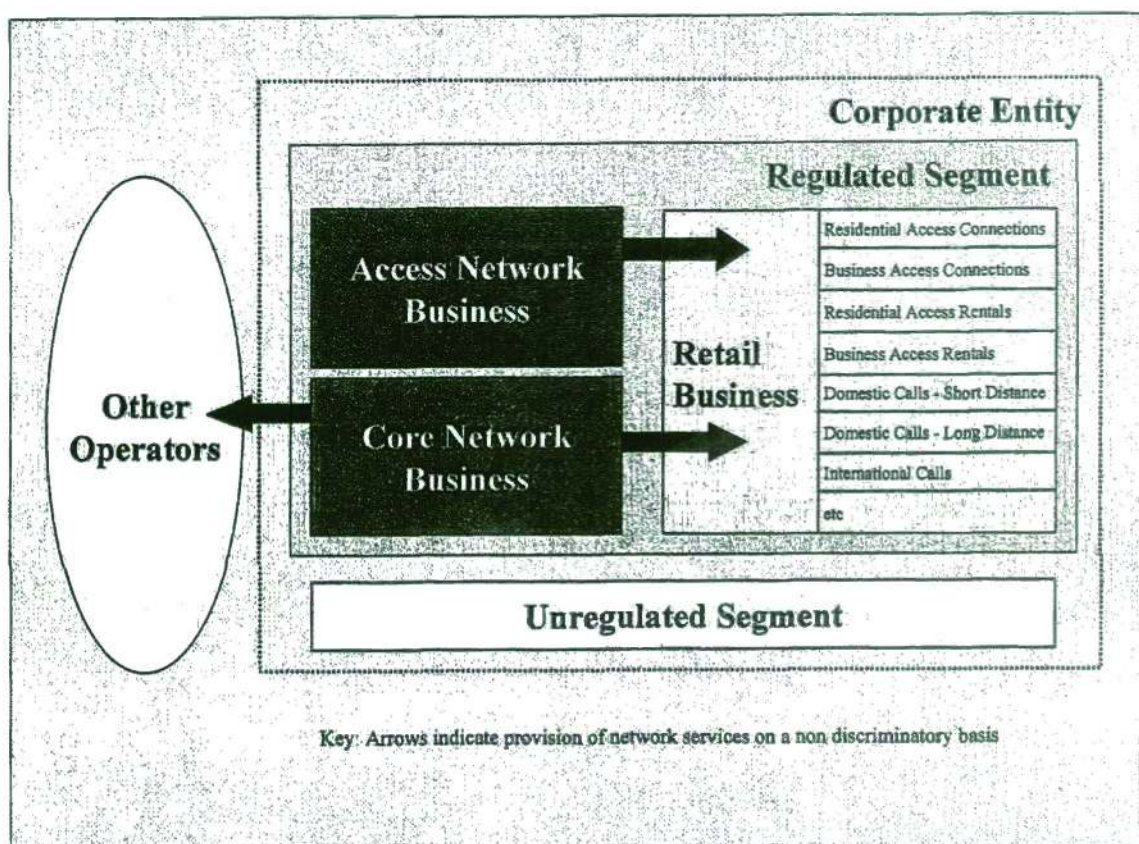
Accounting separation involves analysing the Corporate Entity between Regulated and Unregulated Segments, separate Businesses (as defined below), and groups of services.

The level of disaggregation for PSTS Licensees is driven by the Authority's need to exercise specific regulatory responsibilities. PSTS Licensees must prepare statements for:

- Regulated and Unregulated Segments;
- Businesses; and
- services.

This overall concept is illustrated diagrammatically below.

Figure 1: Illustration of Corporate Entity Disaggregation



Level of Disaggregation

2.2 Reporting Segments

PSTS Licensees must report on the following segments:

- Regulated Segment:
 - Access Network Business;
 - Core Network Business;
 - Retail Business, analysed into the following services:
 - ♦ residential access connections;
 - ♦ business access connections;
 - ♦ residential access rentals;
 - ♦ business access rentals;
 - ♦ domestic calls – short distance;
 - ♦ domestic calls – long distance;
 - ♦ international calls;
 - ♦ calls to mobile;
 - ♦ calls to internet;
 - ♦ directory enquiry services;
 - ♦ other calls;
 - ♦ public payphones;
 - ♦ domestic private circuits;
 - ♦ international private circuits;
 - ♦ data services;
 - ♦ service provider services;
 - ♦ other retail services; and
- Unregulated Segment.

2.3 Access Network Business

The Access Network Business provides connections to the Core Network Business. The financial statements for the Access Network Business include the costs and capital employed associated with providing and maintaining these connections. For accounting separation purposes, the Access Network Business includes all customer-dedicated components including, for example, the copper pair up to the customer premises and line cards located at remote subscriber units or exchanges. The Core Network Business includes all other network assets. The revenue from line connections and rental provided to end-users is recorded in the Retail Business. The cost of providing customer lines is recorded against the Access Network Business and a transfer charge of costs, including a cost of capital, to the Retail Business is levied in order to match revenues and their associated costs.

Level of Disaggregation

2.3.1 Access Network Components

The minimum level of Access Network component detail required for PSTS Licensees is as follows:

Table 1: Access Network Components for PSTS Licensees

Network Component	Description
Local loop – wireless	Wireless and support assets in the local access network
Local loop – fibre	Fibre cable and support assets in the local access network
Local loop – copper	Copper cable and support assets in the local access network
Local loop – NTU equipment	Network termination units, for example private circuit termination equipment
Broadband access equipment	Broadband access equipment
PSTN subscriber units – line interface cards	Analogue and digital PSTN subscriber unit line interface cards
ISDN BRA subscriber units – line interface cards	ISDN basic rate access subscriber unit line interface cards
ISDN PRA subscriber units – line interface cards	ISDN primary rate access subscriber unit line interface cards
Switching – remote subscriber units – line sensitive	Components of remote subscriber units whose costs are driven by subscriber numbers rather than usage
Switching – co-located subscriber units – line sensitive	Components of co-located subscriber units and local switches, whose costs are driven by subscriber numbers rather than usage
Local access connections	The cost of providing connections to customers, including provisioning and jumpering

2.4 Core Network Business

The Core Network Business comprises all regulated services, other than those defined in the Access Network Business and not including the costs and capital employed associated with the provision of services to retail customers (which are included in the Retail Business). These services include interconnection/wholesale services which allow the customer of one Operator to communicate with customers of the same or another Operator, or to access services provided by another Operator, and include the switching and conveyance of calls, data services and private circuits. The revenues of the Core Network Business derive from the sale of interconnection/wholesale services to the Operator's Retail Business and to other Operators. Network charges are based on the consumption of network components.

The Core Network Business also includes payments to other Operators, dedicated transmission and capacity for leased lines and the provision of directory enquiry services and other similar services.

Level of Disaggregation

2.4.1 Core Network Components

The minimum level of core network component detail required for PSTS Licensees is as follows:

Table 2: Core Network Business Components for PSTS Licensees

Network Component Group	Network Component	Description
Switching	Remote subscriber units – traffic sensitive	Components of remote subscriber units whose costs are driven by usage
	Local switches – traffic sensitive	Components of local switches and co-located subscriber units whose costs are driven by usage
	Trunk switches – traffic sensitive	All components of trunk switches (which are driven by usage)
	International switches – traffic sensitive	All components of international switches (which are driven by usage)
Inter-switch Transmission	Remote subscriber unit – Local switch	Inter-switch transmission components include transmission infrastructure and equipment in the core network and reflect the different routing possibilities of call services through an Operator's network (illustrated in Figure 2 below)
	Local switch – Local switch	
	Local switch – Trunk switch	
	Trunk switch – Trunk switch	
	Trunk switch – International switch	
	Local switch – International switch	
	International switch – International switch	

Level of Disaggregation

Network Component Group	Network Component	Description
Other Components	Data and private circuits transmission	Transmission infrastructure and equipment related to data and private circuits service provision in the core network (excluding international transmission)
	International transmission	International transmission infrastructure and equipment related to the provision of all services (e.g. calls, data and private circuits)
	Interconnect links	Links provided by an Operator to provide connections to another Operator's network. Leased circuits within the Operator's own network are included within data and private circuits transmission
	Data and private circuits switching	Data and private circuits switching equipment
	Intelligent network	Intelligent network equipment
	Directory enquiry services	Plant, equipment and staff used to provide directory enquiry services
	Emergency services	Plant, equipment and staff used to provide emergency services
	Operator services	Plant, equipment and staff used to provide operator services
	Public payphones	Public payphone equipment, including telephones and kiosks
	Outpayments – international	Payments to international administrations
	Outpayments – other	Payments to other Operators
	Interconnect product management	Costs associated with managing the portfolio of interconnect products, for example wholesale billing, defining interconnect products and setting up interconnect agreements
	Other components	All other components associated with the core network not included in any of the above categories

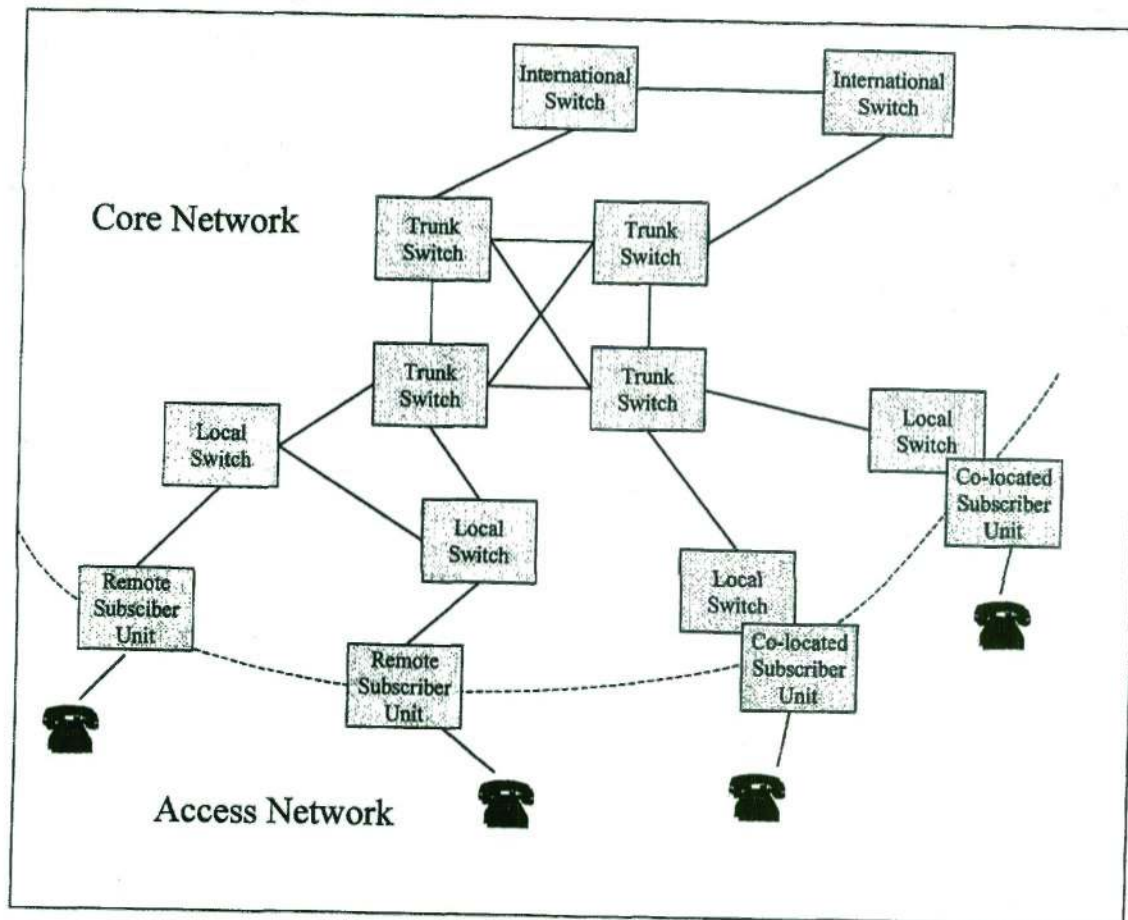
Operators may optionally split the switching network components into call set up and duration sensitive elements, and may wish to split inter-switch transmission components into link and length related components.

Level of Disaggregation

2.4.2 Illustration of Inter-switch Links

Calls are conveyed across different transmission components in the core network; therefore transmission assets should be categorised into the different links that exist in the Operator's network. Inter-switch transmission network components are illustrated in the diagram below.

Figure 2: Core Conveyance Network



Level of Disaggregation

2.5 Retail Business

The Retail Business includes all those activities involving the selling of telecommunications services to end-users, including line rental, calls, private circuits, payphones and the provision of directory enquiry services. The financial statements for the Retail Business include the revenues, costs and capital employed associated with the provision of these services to end-users (including inter alia, VAN and PTN operators). The costs of the Retail Business comprise:

- the costs associated with the provision of end-user services, for example marketing and billing costs; and
- the transfer charges related to the use of network components provided by the Access Network and Core Network Businesses.

The key sub-segments are major service categories that have been selected based on relative market importance, bottleneck characteristics and competitive intensities.

The disaggregated services within the Retail Business are as follows:

- **residential access connections:** the connection and provisioning of ordinary PSTN, basic rate ISDN and primary rate ISDN lines to residential customers;
- **business access connections:** the connection and provisioning of ordinary PSTN, basic rate ISDN and primary rate ISDN lines to business customers. This does not include sales of customer premises equipment, such as PBX's, and internal wiring;
- **residential access rentals:** periodic rental charges for the provision of ordinary PSTN, basic rate ISDN and primary rate ISDN access to residential customers;
- **business access rentals:** periodic rental charges for the provision of ordinary PSTN, basic rate ISDN and primary rate ISDN access to business customers;
- **domestic calls – short distance:** dialled calls charged at domestic call – short distance tariff rates originating from ordinary PSTN, basic rate ISDN and primary rate ISDN telephone exchange lines;
- **domestic calls – long distance:** dialled calls charged at domestic call – long distance tariff rates from ordinary PSTN, basic rate ISDN and primary rate ISDN telephone exchange lines;
- **international calls:** incoming and outgoing dialled calls charged at international tariff rates from ordinary PSTN, basic rate ISDN and primary rate ISDN telephone exchange lines;
- **calls to mobile:** dialled calls originating from ordinary PSTN, basic rate ISDN and primary rate ISDN telephone exchange lines that terminate on a national MCTS Licensee's Network;
- **calls to internet:** calls to internet service numbers originating from ordinary exchange lines;
- **directory enquiry services:** calls placed with an Operator to obtain information about telephone numbers, whether made from business or residential telephone exchange lines or from public payphones and including calls made to the directory enquiry database;
- **other calls:** any other PSTN services, for example premium rate calls and number translation services;
- **public payphones:** any call (for example, domestic and international dialled calls) originating from public payphones using cash, phonecards or credit cards;
- **domestic private circuits:** a telecommunication facility that provides for dedicated transmission capacity between fixed points within South Africa and does not enable the customer to control the switching functions;
- **international private circuits:** a telecommunication facility that provides for dedicated transmission capacity between a fixed point in South Africa and a fixed point outside South Africa and does not enable the customer to control the switching function;

Level of Disaggregation

- **data services:** any data transmission services, with the exception of domestic and international private circuits. This includes packet and cell switched services, such as X25, frame relay, ATM, IP and virtual private networks;
- **service provider services:** any revenue related to the provision of services under neither wholesale nor retail terms. For example, this would include revenues from VANs Licensees; and
- **other retail services:** which include all regulated telecommunications businesses and activities, which are not captured by any of the above segments. For example, this would include messaging services, telex services, broadcast services, internet service supply, etc.

Reporting Requirements

3 REPORTING REQUIREMENTS

3.1 Overview

Volume 1 of the COA/CAM describes at a generic level the reports that constitute the Regulatory Financial Statements that must be submitted to the Authority on an annual basis. This section of the Detailed Requirements expands on the reporting requirements specific to PSTS Licensees by setting out the segments and components for which reports must be prepared.

3.2 Regulatory Financial Statements

As indicated in Volume 1, the following reports must be produced:

- current cost statements:
 - income statements by segment;
 - statements of capital employed by segment;
 - statements of network component costs; and
 - statements of network service costs.
- long run incremental cost ("LRIC") statements:
 - statement of costs on a long run incremental cost basis (no mark-up); and
 - statement of costs on a long run incremental cost basis (with mark-up).
- reconciliation statements:
 - income statement reconciliation to annual statutory financial statements; and
 - statement of capital employed reconciliation to annual statutory financial statements.

The LRIC statements must be prepared with and without a mark-up for the recovery of fixed common and joint costs, as described in Section 8.7 of Volume 1.

Detailed pro-forma reports are included in Appendix B.

3.2.1 Segments

Income statements and statements of capital employed are required for each of the segments described in Section 2.2 of these Detailed Requirements.

Reporting Requirements

3.2.2 Network Component and Service Costs

The statement of network component costs and the statement of network service costs should reflect costs for the network components described in Sections 2.3 and 2.4 of these Detailed Requirements.

3.2.3 LRIC Statements

Statements of costs on a long run incremental cost basis should report costs for the network components that are relevant to interconnection/wholesale conveyance services and interconnection circuits, as follows:

- switching
 - remote subscriber units – traffic sensitive
 - local switches – traffic sensitive
 - trunk switches – traffic sensitive
 - international switches – traffic sensitive
- inter-switch transmission
 - remote subscriber unit – local switch
 - local switch – local switch
 - local switch – trunk switch
 - trunk switch – trunk switch
 - trunk switch – international switch
 - local switch – international switch
 - international switch – international switch
- other components
 - international transmission
 - interconnect links
 - data and private circuits transmission
 - intelligent network
 - interconnect product management

3.3 Reporting Deadlines

Regulatory Financial Statements must be prepared and submitted to the Authority on an annual basis. They must be audited and submitted to the Authority within six months of the Operator's financial year-end.

Chart of Accounts

4 CHART OF ACCOUNTS**4.1 Overview**

The COA defines the minimum level of account detail that Operators must maintain, although it is recognised that Operators should maintain a level of detail in their own chart of accounts which supports the detailed allocation of costs to services. The COA included in these Detailed Requirements does not need to be used by Operators for accounting separation purposes.

4.2 Structure

Each account number has a six digit alphanumeric structure: "u.v.wxyz."

The first two digits, "u.v." represent the account summary (digit "u" – major category summary, digit "v" – minor category summary) and the next four digits, "wxyz", represent the detailed account code.

4.3 Translation to Operators' Records

Operators must maintain a translation of their own chart of accounts and subsidiary ledgers to the COA.

4.4 Detailed Chart of Accounts

Appendix C contains a complete listing of the detailed COA for PSTS Licensees.

Chart of Accounts

4.5 Major Account Categories

The major account categories in the COA are as follows:

Table 3: Major Account Categories

Account Categories			
Class of Account	Major (u)	Minor (v)	Categorisation
Balance Sheet	1. Non-current assets	1. Property, plant and equipment	Categorised by type of property, plant and equipment: <ul style="list-style-type: none"> • Network equipment • Land and buildings • Non-network plant and equipment
		2. Investment properties 3. Intangible assets 4. Interest in subsidiaries 5. Investments in associates 6. Other investments 7. Deferred taxation 8. Non-current receivables	
	2. Current assets	1. Inventories and assets held for resale 2. Receivables and prepayments 3. Marketable securities 4. Cash and cash equivalents	
	3. Capital and reserves	1. Share capital 2. Share premium 3. Retained earnings 4. Revaluation and other reserves	
	4. Non-current liabilities	1. Interest bearing borrowings	
		2. Provisions for liabilities and charges	
		3. Deferred income	
		4. Deferred tax liabilities	
		5. Other non-current liabilities	

Chart of Accounts

Account Categories			
Class of Account	Major (u)	Minor (v)	Categorisation
Balance Sheet (continued)	5. Current liabilities	1. Trade and other payables	
		2. Current tax liabilities	
		3. Current portion of borrowings	
		4. Bank overdrafts	
		5. Provisions for liabilities and charges	
		6. Deferred income	
		7. Dividends declared	
Income Statement	6. Revenue	1. Retail revenue	Categorised as follows: <ul style="list-style-type: none"> • Connections and rentals • Voice revenue • Other PSTN • Leased lines and data • Value added services • Equipment supply Connections and rentals sub-categorised into: <ul style="list-style-type: none"> • Residential • Business
		2. Wholesale revenue	
		3. Miscellaneous revenue	
	7. Direct Costs	1. Discounts and incentives	
		2. Interconnection/wholesale costs	
		3. Other direct costs	

Chart of Accounts

Account Categories			
Class of Account	Major (u)	Minor (v)	Categorisation
Income Statement (continued)	8. Operating Expenses	1. Operational expenses	Categorised as follows: <ul style="list-style-type: none"> • Product and customer management • Network management • Network maintenance • Other maintenance • Other operating costs
		2. Business support costs	Categorised by business process or function: <ul style="list-style-type: none"> • Human resources • Finance • Procurement • Regulatory • Legal • Information systems • Executive and planning
		3. Depreciation, lease and rentals	Categorised by type of property, plant and equipment: <ul style="list-style-type: none"> • Depreciation • Supplementary depreciation • Holding gains/losses • Lease and rental expenses
	9. Non-operating items	1. Income from investments 2. Finance charges 3. Taxation 4. Extraordinary items 5. Dividends	

Chart of Accounts

4.6 Property, Plant and Equipment Categories

Property, plant and equipment has been categorised as set out in the table below. The last three digits are used for all account groups relating to property, plant and equipment assets in the COA (for example cost, accumulated depreciation, and depreciation, lease and rental expenses).

Table 4: Property, Plant and Equipment Categories

Account Code	Description
u.v.w1	Network equipment
u.v.w11	Switching equipment
u.v.w111	Remote subscriber units
u.v.w112	Local digital switches
u.v.w113	Trunk digital switches
u.v.w114	International digital switches
u.v.w115	Intelligent network equipment
u.v.w116	Analogue switches
u.v.w117	Special service switching equipment
u.v.w12	Access equipment
u.v.w121	Wireless local loop equipment
u.v.w122	ISDN network termination units
u.v.w123	Broadband access equipment
u.v.w124	Pair gain equipment
u.v.w125	Network termination equipment
u.v.w126	Other access equipment
u.v.w13	Data and leased lines equipment
u.v.w131	IP equipment
u.v.w132	ATM equipment
u.v.w133	Frame relay equipment
u.v.w134	X25 equipment
u.v.w135	Leased lines equipment
u.v.w14	Transmission infrastructure
u.v.w141	Metallic cable
u.v.w142	Fibre cable
u.v.w143	Submarine cable
u.v.w144	Poles
u.v.w145	Masts and towers
u.v.w146	Duct and trenches
u.v.w147	Cabinets
u.v.w15	Transmission equipment
u.v.w151	Optical PDH equipment
u.v.w152	Optical SDH equipment
u.v.w153	Optical DWDM equipment
u.v.w154	PDH equipment – radio/microwave
u.v.w155	SDH equipment – radio/microwave
u.v.w156	xDSL transmission equipment
u.v.w157	Analogue transmission equipment
u.v.w158	Satellite systems
u.v.w159	Submarine transmission systems
u.v.w160	Transmission distribution frames

Chart of Accounts

Account Code	Description
u.v.w161	Other transmission equipment
u.v.w17	Other plant
u.v.w171	Public payphone equipment
u.v.w172	Telex equipment
u.v.w174	Directory enquiry services equipment
u.v.w175	Directory assistance systems
u.v.w176	Network management systems – switching
u.v.w177	Network management systems – transmission
u.v.w178	Network management systems – data
u.v.w179	Network management systems – infrastructure
u.v.w180	Network management systems – other
u.v.w19	Support plant
u.v.w191	Test equipment
u.v.w192	Power equipment
u.v.w193	Air conditioning equipment
u.v.w194	Other support plant and equipment
u.v.w2	Land and buildings
u.v.w201	Land
u.v.w202	Buildings – general purpose
u.v.w203	Buildings – special purpose
u.v.w3	Non-network plant and equipment
u.v.w31	Furniture and office equipment
u.v.w311	Furniture and office equipment
u.v.w32	Information technology
u.v.w321	General purpose PCs and peripherals
u.v.w322	Hardware
u.v.w323	Software – general
u.v.w324	Software – billing systems
u.v.w325	Software – finance and other systems
u.v.w33	Vehicles
u.v.w331	General purpose vehicles
u.v.w332	Special purpose vehicles
u.v.w34	Customer premises equipment
u.v.w341	PBX equipment
u.v.w342	Private payphones
u.v.w343	Dedicated customer premises private circuit equipment
u.v.w344	Other CPE
u.v.w35	Other
u.v.w351	Other non-network plant and equipment

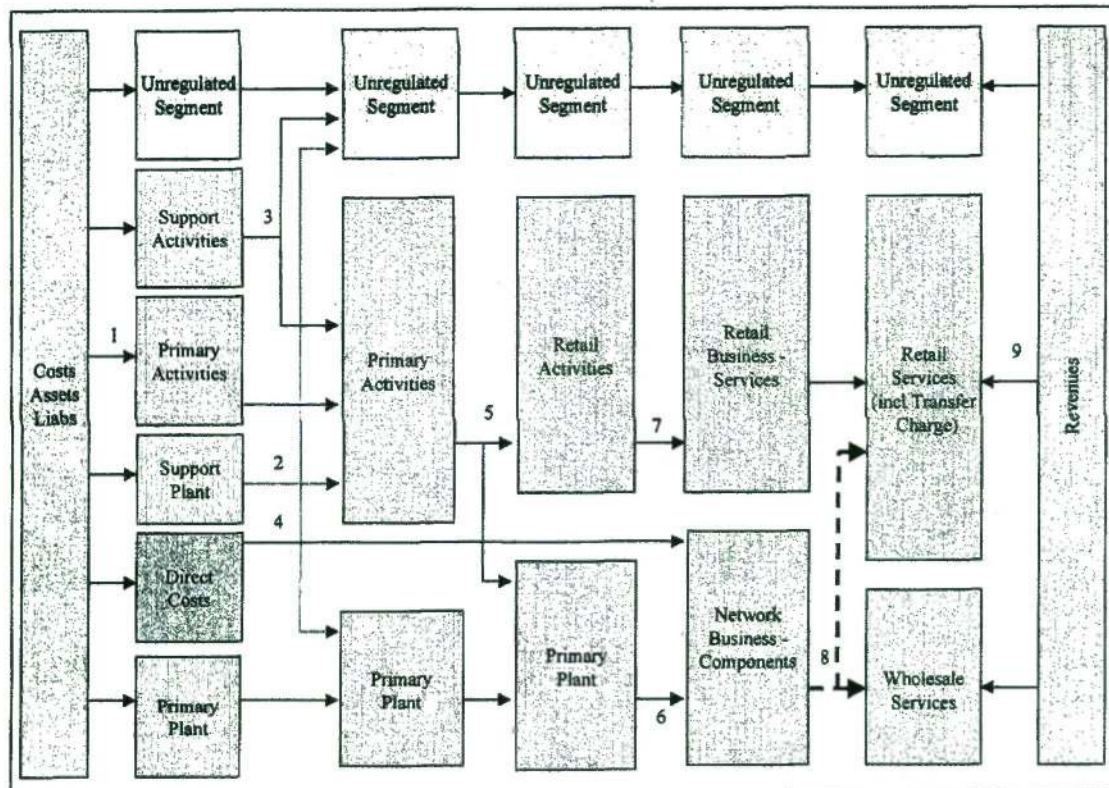
Attribution Methodology

5 ATTRIBUTION METHODOLOGY

5.1 Introduction

This section sets out detailed guidelines for attribution of revenues, costs, assets and liabilities to segments. These guidelines are intended to assist Operators in developing their accounting separation methodology. Operators may choose alternative methodologies, as long as they are in accordance with the accounting separation principles described in Section 4 of Volume 1.

Figure 3: Overview of Accounting Separation Methodology

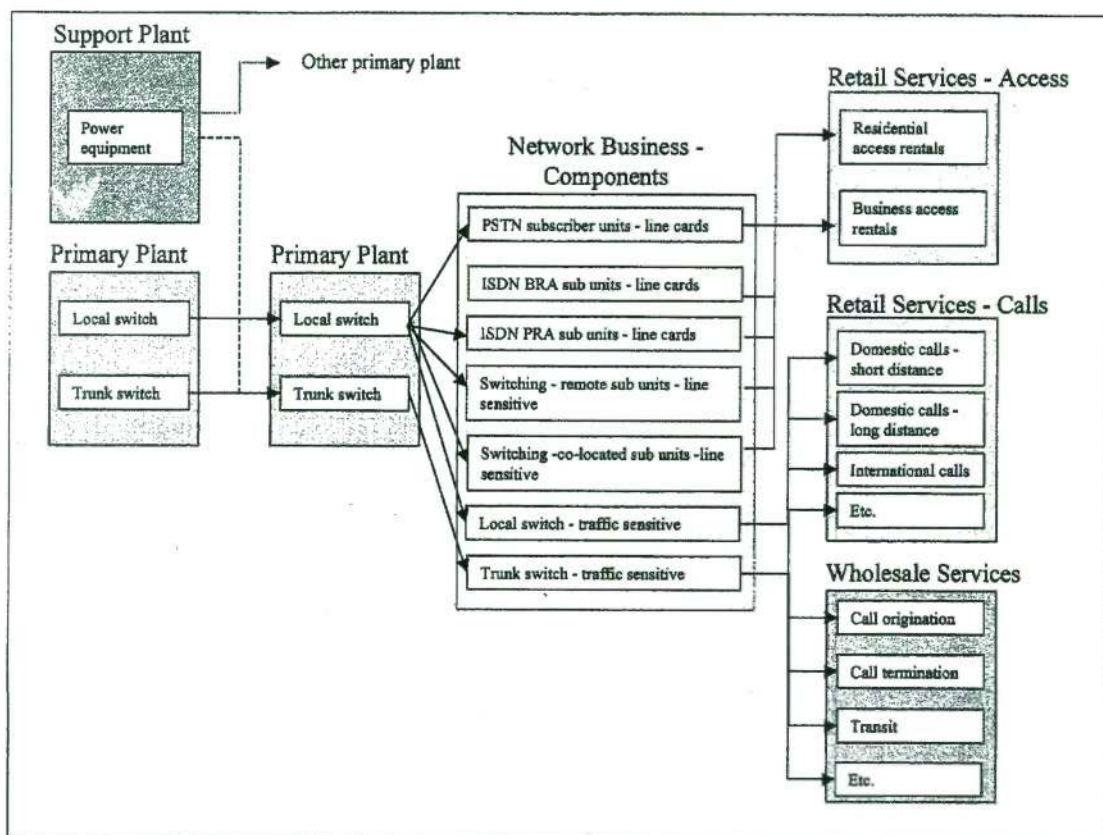


Each of the steps is described in detail below.

In order to illustrate the logic behind the detailed attribution steps, an example is set out below.

Attribution Methodology

Figure 4: Attribution Methodology Example



This example illustrates the allocation steps using three plant items:

- local switch;
- trunk switch; and
- power equipment.

Clearly, it is not possible to allocate the cost of these plant items to services directly and transparently. However, the steps illustrated in the diagram allow a series of allocations where causal drivers can be identified at each stage:

- (1) Power equipment can be allocated to primary plant cost pool groups, including local and trunk switches based on the power they consume.
- (2) Local switches are analysed into line and traffic sensitive components (based on a detailed analysis of the switch – often provided by switch manufacturers).
- (3) Line sensitive switch components can be allocated, as represented by a transfer charge, to access retail services.
- (4) Traffic sensitive switch components can be allocated, as represented by a transfer charge, to retail call services and Interconnect/wholesale services, based on the number of minutes for each call, weighted by the typical routing through the network.

Attribution Methodology

5.2 Allocation of Costs to Initial Cost Pool Groups

All costs recorded in the Operator's financial records should be allocated to one of the following cost pool groups:

- Unregulated Segment;
- Support activities;
- Primary activities;
- Support plant;
- Direct costs; or
- Primary plant.

The cost pools represent groupings of costs which are subsequently allocated on a common basis (i.e. regardless of the accounts that are contained in a cost pool).

Where an item of cost can be directly and uniquely associated with a cost pool, no apportionment is required, and the item can be assigned directly. Items which cannot be directly and uniquely assigned to a cost pool should be apportioned according to their cost drivers. Operators must document how their own chart of accounts is allocated to cost pools.

The COA has been designed to align closely with the cost pool groups, and is used as the basis for setting out attribution guidelines. Appendix D defines the categorisation of the COA into the relevant cost pool groups, where appropriate.

5.3 Allocation of Support Plant

The support plant cost pool will include depreciation, lease and rental charges, as well as asset-related balances including cost and accumulated depreciation. As illustrated in Figure 3, support plant may be allocated to primary plant, primary activities or the Unregulated Segment. In certain cases, support plant may support other support plant. For example, air conditioning equipment is used for buildings, which in turn provide accommodation for staff performing primary activities and for primary plant.

The table below sets out detailed allocation guidelines.

Attribution Methodology

Table 5: Support Plant Allocations

Cost Pool	Allocation Details
Other plant	
Network management systems – switching	Allocate to switches, based on engineering estimates of usage or the net book value of switches, as a proxy
Network management systems – transmission	Allocate to transmission equipment, based on engineering estimates of usage or the net book value of transmission equipment, as a proxy
Network management systems – data	Allocate to data plant items, based on engineering estimates of usage or the net book value of data equipment, as a proxy
Network management systems – infrastructure	Allocate to primary plant, based on engineering estimates of usage or the net book value of assets, as a proxy
Network management systems – other	Allocate to network plant, based on engineering estimates of usage or the net book value of assets, as a proxy
Support plant	
Test equipment	Allocate to the relevant primary plant, based on a detailed analysis of test equipment
Power equipment	Allocate to the relevant primary plant, based on an assessment of power usage by the primary plant
Air conditioning equipment	Allocate to the buildings that are air conditioned, based on a detailed analysis of equipment. Area may be used as a proxy
Other support plant and equipment	Allocate to the relevant primary plant, based on an analysis of other support plant and equipment
Land and buildings	-
Land	Allocate to the relevant buildings
Buildings – general purpose	Allocate to the activities which make use of the relevant buildings on the basis of the area occupied by staff performing those activities
Buildings – special purpose	Allocate to the activities and primary plant which make use of the relevant buildings on the basis of the area occupied by staff and primary plant
Non network plant and equipment	-
Furniture and office equipment	-
Furniture and office equipment	Allocate to activities that use furniture and office equipment. Where a detailed analysis does not exist, it is appropriate to use the number of employees performing each activity as a proxy
Information technology	-
General purpose PCs and peripherals	Allocate to activities that use the equipment, on the basis of the number of PCs used, or the number of employees performing each activity as a proxy
Hardware	Allocate to the systems that use the hardware
Software – general	Allocate to the activities that use general-purpose software. Where a detailed analysis does not exist, it is appropriate to use the number of employees performing each activity as a proxy
Software – billing systems	Allocate to primary activities (retail billing function and wholesale billing function), based on the licence fees for retail and interconnect/wholesale billing software
Software – finance and other systems	Allocate to the activities which make use of the software, based on a survey
Vehicles	-
General purpose vehicles	Allocate to activities based on the usage of vehicles, for example the kilometres driven

Attribution Methodology

Cost Pool	Allocation Details
Special purpose vehicles	Allocate to activities such as network maintenance, based on the usage of vehicles, for example the kilometres driven
Other	-
Other non-network plant and equipment	Allocate to the activities that make use of the equipment. Where a detailed analysis does not exist, it is appropriate to use the number of employees performing each activity as a proxy

Attribution Methodology

5.4 Allocation of Support Activities

The support activities cost pool will include pay and non-pay costs. As illustrated in Figure 3, support activities may be allocated to primary activities or the Unregulated Segment. In exceptional cases, allocation to retail services is also possible. Clearly, support activities will support each other (for example, the human resource department will support the IT department and vice versa) and a complex set of inter-relationships may exist. Operators may choose to model all of these inter-relationships or may choose to prevent circularity.

The table below sets out detailed allocation guidelines.

Table 6: Support Activity Allocations

Cost Pool	Allocation Details
Network maintenance	-
Support plant maintenance	Allocate to support plant on the basis of an analysis or estimate of time spent on this activity
Other maintenance	-
Land and buildings maintenance	Allocate to land and buildings on the basis of an analysis or estimate of time spent on this activity
Information technology equipment maintenance	Allocate to information technology assets on the basis of an analysis or estimate of time spent on this activity
Motor vehicle maintenance	Allocate to motor vehicle assets on the basis of an analysis or estimate of time spent on this activity
Customer premises equipment maintenance	Allocate to customer premises equipment on the basis of an analysis or estimate of time spent on this activity
Other non-network equipment maintenance	Allocate to other non-network equipment on the basis of an analysis or estimate of time spent on this activity
Other operating costs	-
Business support costs	-
Human resource function costs	Allocate to primary activities and the Unregulated Segment, based on the number of staff performing those activities
Finance function costs	Allocate to primary activities and the Unregulated Segment, based on the number of financial transactions related to those activities
Procurement function costs	Allocate to primary activities and the Unregulated Segment, based on the number of purchases related to those activities
Regulatory function costs	Allocate to primary activities and primary plant, based on an analysis of the activities performed by the regulatory function (for example, the costs of retail pricing compliance should be allocated to retail activities on a prorated cost basis). Common regulatory functions should be allocated to primary activities and primary plant on a prorated cost basis. No regulatory function costs should be allocated to the Unregulated Segment
Legal function costs	Allocate to primary activities and the Unregulated Segment, based on an analysis of the legal costs. Where costs are specific (for example, legal costs relating to interconnection negotiations) assign directly to the relevant segment. For general legal costs, allocate to activities on the basis of costs before any apportionment

Attribution Methodology

Cost Pool	Allocation Details
Information systems function costs	Allocate to primary activities and the Unregulated Segment. Where staff are assigned to specific support functions (for example, supporting billing systems), allocate to the relevant activity. Where staff are assigned to general support activities, allocate to primary activities on the basis of the number of personal computers used by those activities
Executive and planning function costs	Allocate to primary activities and the Unregulated Segment, based on the costs of those activities, before cost allocations
Other operating costs	-
Warehouse management costs	Allocate to primary activities and the Unregulated Segment, based on the number of stores issues
Transport management costs	Allocate to primary activities and the Unregulated Segment, on the same basis as motor vehicles (i.e. usage)
Research and development costs	Allocate to the relevant primary plant for which the research and development costs were incurred. For example, if the costs relate to broadband access the costs should be allocated to broadband access equipment
Accommodation costs – general purpose	Allocate to primary activities and the Unregulated Segment on the same basis as buildings (i.e. area occupied)
Accommodation costs – special purpose	Allocate to primary plant and activities and the Unregulated Segment on the same basis as buildings
Electricity and power costs	Allocate to primary plant and activities and the Unregulated Segment on the basis of power consumption by the relevant plant
Foreign exchange gains and losses	Foreign exchange gains and losses arising as a result of receipts from overseas administrations should be assigned to relevant services. Foreign exchange gains and losses arising as a result of payments to overseas administrations should be allocated to the outpayments – international network component. Other major individual gains and losses should be analysed and allocated to the activity or plant item to which they relate. Residual movements should be allocated to activity and plant based on a prorated cost basis
Gain/loss on asset disposals	For large gains or losses, allocate directly to relevant primary plant. Residual amounts should be allocated on the basis of depreciation by plant category
Property taxes	Allocate to primary plant on the basis of area occupied by relevant buildings. If tax rates are different for different types of property, an appropriate weighting should be applied
Other taxes	Other taxes should be allocated to primary plant and activities, based on the purpose of the tax
Non operating items	-
Income from investments	-
Interest received	If the interest is related to specific items, allocate accordingly. Otherwise, allocate to primary plant, primary activities and the Unregulated Segment on a prorated basis
Finance charges	-
Other interest payable	If the interest is related to specific items, allocate accordingly. Otherwise, allocate to primary plant, primary activities and the Unregulated Segment on a prorated basis
Other financial charges	Otherwise, allocate to primary plant, primary activities and the Unregulated Segment on a prorated basis

Attribution Methodology

5.5 Allocation of Direct Costs

The table below sets out the guidelines for allocating direct costs. Direct costs should typically be assigned directly to the relevant service or network component.

Table 7: Direct Costs Allocations

Cost Pool	Allocation Details
Discounts and incentives	-
Volume discounts	Where account detail is used to capture volume discounts by service, assign directly to service. Where account detail is not available, allocate to services on the basis of a primary analysis of the account or on the basis of revenues
Other incentives	
Interconnection/wholesale costs	-
Payments to overseas administrations	Assign directly to outpayments - overseas network component
Payments to MCTS Licensees	Assign directly to outpayments - other network component
Payments to PSTS Licensees	Assign directly to outpayments - other network component
Other direct costs	-
Calling cards	Assign to public payphones network component, or to relevant services, where appropriate
Other direct costs	Allocate to services on the basis of a primary analysis of the account

Attribution Methodology

5.6 Allocation of Primary Activities

The table below sets out the guidelines for allocating the primary activity cost pool. Primary activities are allocated mainly to primary plant or retail services, however certain costs are allocated to network components.

Table 8: Primary Activity Allocations

Cost Pool	Allocation Details
Product and customer management	-
Product development costs	Allocate to retail activities. The retail activities should be at a more detailed level, which can be causally allocated to services. For example, advertising costs might be sub divided into corporate advertising, business advertising, residential consumer advertising and advertising for new services (e.g. broadband access). Similarly, product development might be split into voice and data product management. The basis for the allocations should be detailed account and time analyses
Product management costs	
Sales and marketing costs	
Advertising costs	
Sponsorship costs	
Retail billing function costs	
Wholesale billing function costs	Direct to interconnect product management network component
Carrier service function costs	Direct to interconnect product management network component
Customer management costs	As for product development costs
Bad debts expense	Allocate to retail activities and interconnect product management network component, based on a detailed analysis of the expense
Network management	-
Network design and planning costs	Allocate to primary plant based on management estimates of the time spent on the design and planning of relevant components of the network
Network management costs	Allocate to primary plant based on an analysis or estimate of time spent on network management
Network maintenance	-
Switching equipment maintenance	Allocate to relevant equipment on the basis of an analysis or estimate of time spent on this activity and detailed account records
Access equipment maintenance	
Data and leased lines equipment maintenance	
Transmission infrastructure maintenance	
Transmission equipment maintenance	
Other plant maintenance	
Other operating costs	-
Licence fees	Allocate to primary plant and primary activities on a prorated cost basis

Attribution Methodology

5.7 Allocation of Primary Plant

The table below sets out the guidelines for allocating the primary plant cost pool. Primary plant is allocated mainly to network components.

Table 9: Primary Plant Allocations

Cost Pool	Allocation Details
Network equipment	-
Switching equipment	-
Subscriber units	Allocate to subscriber units – line interface cards (PSTN, ISDN BRA and ISDN PRA), switching – remote subscriber units – line sensitive and remote subscriber units - traffic sensitive network components, based on an analysis of the component parts that make up the subscriber units
Local digital switches	Allocate to subscriber units – line interface cards (PSTN, ISDN BRA and ISDN PRA), switching – co-located subscriber units – line sensitive and local switches – traffic sensitive network components, based on an analysis of the component parts that make up the switches
Trunk digital switches	Allocate directly to trunk switches - traffic sensitive network component
International digital switches	Allocate directly to international switches - traffic sensitive network component
Intelligent network equipment	Allocate directly to intelligent network component
Analogue switches	Allocate to subscriber units – line interface cards (PSTN, ISDN BRA and ISDN PRA), switching – co-located subscriber units – line sensitive and local switches - traffic sensitive network components, based on an analysis of the component parts that make up the analogue switches
Special service switching equipment	Allocate to operator services, directory enquiry services and emergency services network components on the basis of a detailed analysis of the equipment used by each of these services
Access equipment	-
Wireless local loop equipment	Allocate to local loop – wireless network component
ISDN network termination units	Allocate to local loop – NTU equipment network component
Broadband access equipment	Allocate to broadband access equipment network component
Pair gain equipment	Allocate to local loop – copper network component
Network termination equipment	Allocate to local loop – NTU equipment network component
Other access equipment	
Data and leased lines equipment	
IP equipment	Allocate to data and private circuits switching network component
ATM equipment	
Frame relay equipment	
X25 equipment	
Leased lines equipment	

Attribution Methodology

Cost Pool	Allocation Details
Transmission infrastructure	
Metallic cable	Allocate to local loop – copper, inter-switch transmission, data and private circuits transmission, international transmission and interconnect links components. The basis for the allocation should be the cable length associated with different components. Where cable is shared by components, allocate between the shared components on the basis of capacity (measured in 2MB equivalents) used by the different components
Fibre cable	Allocate to local loop – fibre, inter-switch transmission, data and private circuits transmission, international transmission and interconnect links components. The basis for the allocation should be the cable length associated with different components. Where cable is shared by components, allocate between the shared components on the basis of capacity (measured in 2MB equivalents) used by the different components
Submarine cable	Allocate to international transmission component
Poles	Allocate to transmission components based on the number of poles related to each component. In the absence of detailed operational data, a survey should be used to estimate the proportions of poles used by each component. Where metallic and fibre pairs share poles, allocate further using number of pairs carried
Masts and towers	Allocate to transmission components, based on capacity (radio 2MB equivalents)
Duct and trenches	Allocate to transmission components based on trench length, taking account of surface media and numbers of duct bores. Where detailed operational data does not exist, a survey should be performed to estimate the allocation percentages. Allocate further on the same basis as metallic and fibre cable
Cabinets	Allocate to transmission components based on the number of cabinets in the local loop and core transmission network, followed by a reasonable weighting factor to allocate between copper and fibre (for example, number of copper and fibre pairs)
Transmission equipment	-
Optical PDH equipment	Allocate to local loop – fibre and copper, inter-switch transmission, data and private circuits transmission, international transmission and interconnect links components. The basis for the allocation should be the capacity (measured in 2MB equivalents) used by different components. Where material, repeater equipment should be allocated on the basis of cable length
Optical SDH equipment	
Optical DWDM equipment	
PDH equipment – radio/microwave	
SDH equipment – radio/microwave	
xDSL transmission equipment	
Analogue transmission equipment	Allocate to transmission components based on capacity used by the different components
Satellite systems	
Submarine transmission systems	
Transmission distribution frames	The cost pool should be analysed into optical and metallic distribution frames and allocated to transmission components on the basis of number of connections
Other transmission equipment	A detailed analysis of the cost pool should be performed, and appropriate allocations made. If the cost pool is immaterial, allocate to transmission components on a prorated cost basis
Other plant	-
Public payphone equipment	Allocate to public payphones network component

Attribution Methodology

Cost Pool	Allocation Details
Telex equipment	Allocate to telex equipment within other components
Directory enquiry services equipment	Allocate to directory enquiry services network component
Directory assistance systems	Allocate to directory enquiry services network component
Customer premises equipment	-
PBX equipment	Allocate to Unregulated Segment
Private payphones	
Dedicated customer premises private circuit equipment	
Other CPE	

Attribution Methodology

5.8 Allocation of Retail Activities to Services

The table below sets out the guidelines for allocating retail activities to services. Where possible, revenue should not be used as the basis for allocations, however the Authority recognises that in some cases this may be the only reasonable basis.

Table 10: Retail Activity Allocations

Cost Pool	Allocation Details
Product and customer management	-
Product development activities	<p>The previous allocation step assumes that the activities are at a granular enough level to allow transparent allocation to services. Where activities can be allocated to groups of services, it may be appropriate to apportion them between services using drivers such as:</p> <ul style="list-style-type: none"> • average number of customers purchasing each service; or • service volumes
Product management activities	
Sales and marketing activities	
Advertising activities	
Sponsorship activities	
Retail billing function activities	
Customer management activities	
Bad debts expense – retail	

Attribution Methodology

5.9 Transfer Charging

As indicated in Volume 1, transfer charges and charges to other Operators are based on unit charges and usage.

5.9.1 Transfer Charges from the Core Network Business

The principles of calculating transfer charges are set out in Volume 1. The data requirements for call conveyance charges are as follows:

- call traffic volumes by service; and
- route factors by network component for each service.

Route factors refer to the typical routing of a call through an Operator's network. They should be established by reference to actual calls (taken from a call sample) or by consulting network engineers to establish the routings programmed into the network.

For non-call conveyance charges, it is necessary to calculate the transfer charge based on the proportion of each network component used by different services. For example, the data and private circuits transmission network component should be allocated to data services, domestic private circuits and international private circuits based on the capacity used by each service.

5.9.2 Transfer Charges from the Access Network Business

The Access Network Business levies a charge to the Retail Business equal to the cost of the Access Network Business, including a return on capital employed.

The transfer charge for each retail service should be calculated on the basis of respective usage. For example, the local loop – copper network component should be allocated to residential access rentals and business access rentals based on the number of copper connections for each service.

5.10 Allocation of Revenues

Revenues should be either assigned directly to segments, or should be directly attributed on the basis of a detailed analysis of transactions that make up the account.

Attribution Methodology

5.11 Allocation of Capital Employed

This section describes in detail the allocation of capital employed. The following general rules should be applied:

- property plant and equipment capital employed balances (for example, cost and accumulated depreciation) should be allocated in exactly the same way as the relevant costs (as described earlier in this Section);
- inventories should be allocated to primary activities on the basis of number of stores issues;
- trade debtors should be allocated to retail services on the basis of revenues;
- Wholesale debtors and creditors should be allocated to the interconnect product management network component within the Core Network Business;
- staff debtors and creditors should be allocated to support and primary activities on the basis of pay costs;
- trade creditors should be allocated to cost pools on the basis of non-pay operating costs (excluding depreciation);
- capital creditors should be allocated to the primary plant cost pool on the basis of capital expenditure in the period;
- cash and similar accounts should be allocated to cost pools on the basis of operating costs and capital expenditure; and
- other capital employed balances should be allocated to cost pools on a causal or reasonable basis.

Operators should consider the materiality of each of the balances when selecting appropriate drivers. The table below provides detailed guidelines for allocating capital employed balances.

Table 11: Capital Employed Allocations

Cost Pool	Allocation Details
Non Current Assets	-
Investment properties	-
Investment properties	Allocate to the Unregulated Segment
Intangible assets	-
Licences	Allocate on the same basis as Licence fees
Permits and rights of way	Allocate to relevant primary plant (being those for which permits and rights of way are required for their construction e.g. poles, duct, etc.) in such a way as to reflect the costs associated with each primary plant group
Patents, copyrights and trademarks	Allocate to cost pools based on a detailed analysis of the items that make up the account
Capitalised development costs	Allocate on the same basis as that described for research and development costs
Other intangible assets	Allocate to cost pools based on a detailed analysis of the items that make up the account
Interest in subsidiaries	-
Interest in subsidiaries	Allocate to the Unregulated Segment
Investments in associates	-
Investments in associates	Allocate to cost pools based on a detailed analysis of the items that make up the account

Attribution Methodology

Cost Pool	Allocation Details
Other investments	-
Other investments	Allocate to cost pools on the basis of operating costs and capital expenditure
Deferred taxation	-
Deferred taxation	A detailed analysis of the account should be performed, and allocations should be based on the items which give rise to deferred tax assets
Non-current receivables	-
Non-current receivables	Allocate to cost pools on the basis of a detailed analysis of the items which constitute the balance
Current Assets	-
Inventories and assets held for resale	-
Inventories	Allocate to primary activities based on the number of stores issues
Receivables and prepayments	-
Accounts receivable - retail customers	Allocate to retail services based on revenues
Accounts receivable - service providers	Allocate to service provider services
Accounts receivable - other Operators	Allocate to the interconnect product management network component
Accounts receivable - Affiliates	Allocate to cost pools depending on the nature of the balances with Affiliates (likely to be Unregulated Segment)
Short term loans - non Affiliates	Allocate to cost pools depending on the nature of the balances (likely to be Unregulated Segment)
Short term loans - Affiliates	Allocate to cost pools depending on the nature of the balances with Affiliate (likely to be Unregulated Segment)
Provisions for doubtful accounts - retail customers	Allocate to retail services based on incidences of default (for example rental services are likely to be paid in advance), and then on revenue
Provisions for doubtful accounts - service providers	Allocate to service provider services
Provisions for doubtful accounts - other Operators	Allocate to the interconnect product management network component
Provisions for doubtful accounts - Affiliates	Allocate to cost pools depending on the nature of the balances with Affiliate (likely to be Unregulated Segment)
Other receivables	Staff receivables should be allocated to cost pools based on pay costs. Remaining receivables should be allocated to cost pools based on a detailed analysis of the items which constitute the balance
Prepayments	Allocate to cost pools based on a detailed analysis of the items which constitute the balance
VAT receivable	Allocate to cost pools on the basis of 'Vatable' non-pay operating costs
Marketable securities	-
Marketable securities	Allocate to cost pools on the basis of operating costs and capital expenditure
Other financial assets	
Cash and cash equivalents	-
Cash and cash equivalents	Allocate to cost pools on the basis of operating costs and capital expenditure

Attribution Methodology

Cost Pool	Allocation Details
Non Current Liabilities	-
Provisions for liabilities and charges	-
Provisions for liabilities and charges	Allocate to cost pools based on a detailed analysis of the items which give rise to the provisions
Deferred income	-
Deferred income	Allocate to retail services based on the revenues which give rise to deferred income
Deferred tax liabilities	-
Deferred tax liabilities	Allocate to cost pools based on an analysis of the items which give rise to deferred tax liabilities (for example, where the liability arises as a result of accelerated capital allowances, allocate to the relevant plant)
Other non-current liabilities	-
Long term debts owed to Affiliates	Allocate to cost pools based on an analysis of the account and reasonable drivers
Long term Licence fees payable	Allocate to cost pools on same basis as Licence fees
Other non-current liabilities	Allocate to cost pools based on a detailed analysis of the items which constitute the balance
Current Liabilities	-
Trade and other payables	-
Trade creditors	Allocate to cost pools on the basis of operating non-pay operating costs
Amounts due to other Operators	Allocate to the interconnect product management network component
Amounts due to Affiliates	Allocate to cost pools on the basis of a detailed analysis of the items which constitute the balance
Accrued expenses	
Customer deposits	Allocate to retail services based on relevant revenues
Other creditors	Allocate to cost pools on the basis of a detailed analysis of the items which constitute the balance
VAT payable	Allocate to retail services based on 'Vatable' revenues
Current tax liabilities	-
Current tax liabilities	Allocate to cost pools on the basis of operating costs and capital expenditure
Bank overdrafts	-
Bank overdrafts	Allocate to cost pools on the basis of operating costs and capital expenditure
Provisions for liabilities and charges	-
Provisions for liabilities and charges	Allocate to cost pools based on a detailed analysis of the items which give rise to the provisions
Deferred income	-
Deferred income	Allocate to retail services based on the revenues which give rise to deferred income
Dividends declared	-
Dividends declared	Allocate to cost pools on the basis of operating costs and capital expenditure

Long Run Incremental Costing

6 LONG RUN INCREMENTAL COSTING

6.1 Overview

Volume 1 sets out the principles and methodologies to be followed by Operators in the preparation of LRIC statements. This section of the Detailed Requirements describes the increments to be measured and LRIC documentation to be included in Operators' Procedures Manuals.

6.2 LRIC Assumptions

The key assumptions set out in Volume 1, are as follows:

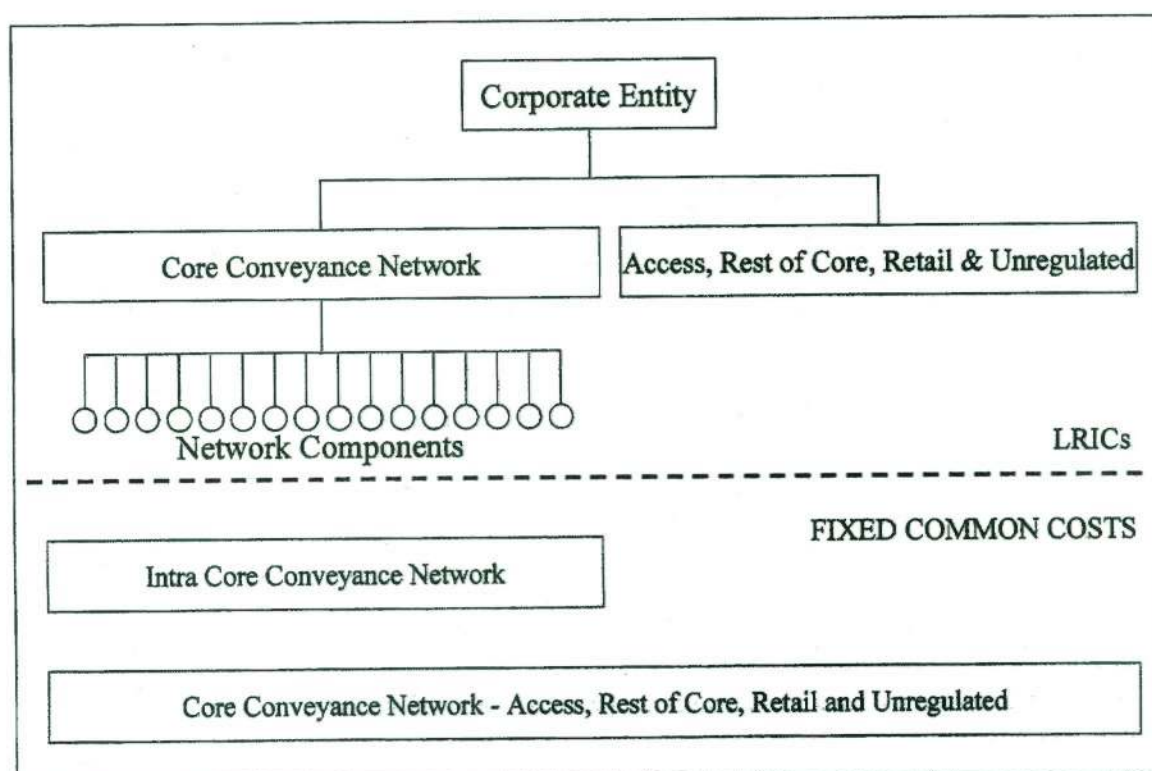
- a top down approach must be adopted;
- current cost and efficiency adjustments must be made to actual costs;
- LRIC must be calculated based upon the principle of scorched node rather than scorched earth;
- thinning - existing transmission routes are required to provide connectivity between network nodes, independent of the scale of activity;
- service levels - it may be assumed that existing levels of quality of service are maintained;
- mix - the mix of demand characteristics that impact on the volume axis of a cost function should be assumed to be constant with respect to scale;
- recovery of fixed common and joint costs - an equi-proportionate mark up ("EPMU") is to be applied for the recovery of fixed common and joint costs.

6.3 Increments to be Measured

The calculation of LRIC can start from any reference point. The Authority requires that this point be defined as the whole of the Corporate Entity, in order to allow reconciliation of LRICs to the accounting separation system. The diagram below illustrates the minimum level of increments to be modelled. The boxes above the dotted line represent the main increments to be measured. The circles indicate where main increments are to be analysed further into smaller increments. The shaded boxes below the dotted line represent the areas where fixed common costs exist across increments. The shaded boxes are shown spanning the increments to which they relate.

Long Run Incremental Costing

Figure 5: LRIC Increments



As indicated above, Operators must adopt a top down approach to modelling LRIC. This implies that the starting point is the incurred costs that arise out of the Corporate Entity's activities. A description of each of the increments is set out below.

6.3.1 Access, Rest of Core, Retail and Unregulated

The LRIC model should focus on the increments within the core conveyance network increment. In order to identify fixed common costs between the core conveyance network increments and access, rest of core, retail and unregulated, it is necessary to identify this as a separate increment.

6.3.2 Core Conveyance Network

The core conveyance network increment comprises those network components which are used to deliver Interconnect/wholesale conveyance services (i.e. call origination, call termination and transit) and Interconnect circuits.

LRICs should therefore be calculated for each of the following network components (note that these are identical to the network components defined for accounting separation, except that those components not required to cost Interconnect/wholesale conveyance services and Interconnect circuits are excluded).

Long Run Incremental Costing

Table 12: LRIC Components

Component Group	LRIC Component
Switching	Remote subscriber units – traffic sensitive
	Local switches – traffic sensitive
	Trunk switches – traffic sensitive
	International switches – traffic sensitive
Inter-switch Transmission	Subscriber unit – local switch
	Local switch – local switch
	Local switch – trunk switch
	Trunk switch – trunk switch
	Trunk switch – international switch
	Local switch – international switch
	International switch – international switch
Other components	International transmission
	Interconnect links
	Data and private circuits transmission
	Intelligent network
	Interconnect/wholesale product management

6.4 LRIC Documentation in Procedures Manuals

The following LRIC information must be documented in the Operators' Procedures Manuals:

- key assumptions made in calculating LRICs;
- cost categories:
 - cost categories;
 - volume driver for each cost category;
 - a mapping of the Operator's general ledger to cost categories;
- cost drivers:
 - cost drivers for each cost category;
 - basis for determination of cost driver volumes;
- CVRs:
 - name of the CVR;
 - description of the general form of the CVR;
 - an explanation of the rationale and assumptions underpinning the CVR;
 - explanation of how the CVR is derived;
 - sources of data;

Long Run Incremental Costing

- recovery of fixed common and joint costs:
 - method used to recover fixed common and joint costs;
 - rationale for method used;

- LRIC system:
 - description of system used to calculate LRIC; and
 - details of processing that takes place within the system.

Appendices

APPENDICES**Appendix A – Glossary of Terms**

ATM	Asynchronous Transfer Mode
BRA	Basic Rate Access
COA/CAM	Chart of Accounts/Cost Allocation Manual
COA	Chart of Accounts
CPE	Customer Premises Equipment
DWDM	Dense Wave Division Multiplexing
IP	Internet Protocol
ISDN	Integrated Services Digital Network
MB	Megabit
MCTS	Mobile Cellular Telecommunication Service
NTU	Network Termination Unit
PBX	Private Branch Exchange
PDH	Plesiochronous Digital Hierarchy
PRA	Primary Rate Access
PSTN	Public Switched Telecommunication Network
PSTS	Public Switched Telecommunication Service
SDH	Synchronous Digital Hierarchy
xDSL	Digital Subscriber Line

Appendices

Appendix B – Detailed Report Specifications

The following reports are set out in this appendix.

Report	Segment	Appendix
Income statements / statements of capital employed	Access Network Business	B1, B2
	Core Network Business	B3, B4
	Retail Business	B5, B6
	Retail services:	B7-B10
	<ul style="list-style-type: none"> • residential access connections; • business access connections; • residential access rentals; • business access rentals; • domestic calls – short distance; • domestic calls – long distance; • international calls; • calls to mobile; • calls to internet; • directory enquiry services; • other calls; • public payphones; • domestic private circuits; • international private circuits; • data services; • service provider services; and • other retail services. 	
Statement of network component costs	Access Network Business	B11
	Core Network Business	B12
Statement of network service costs	Access Network Business	B13
	Core Network Business	B14
Statement of costs on a LRIC basis (no mark-up);	Core conveyance network	B15
Statement of costs on a LRIC basis (with mark-up);	Core conveyance network	B15
Income statement reconciliation to annual statutory financial statements	Corporate Entity	B16
Statement of capital employed reconciliation to annual statutory financial statements	Corporate Entity	B17

Only one retail service report is included for reference. All retail service reports should follow the same format.

Appendices

Certain reports include the terms 'Return on Capital Employed' and 'Return on Revenue'. Return on capital employed is calculated as:

- $\text{Return} / \text{Capital employed}$

Return on revenue is calculated as:

- $\text{Return} / \text{Revenue}$

The latter is used because the nature of transfer charges will mean that the Retail Business will have an exceptionally high, and therefore almost meaningless, return on capital employed. It is therefore more appropriate to use the return on revenue measure to assess the performance of the Retail Business.

Appendices

Appendix B1 – Income Statement: Access Network Business

CORPORATE ENTITY

ACCESS NETWORK BUSINESS

CURRENT COST INCOME STATEMENT for the year ended		
	Current Year R'000	Prior Year R'000
Revenue		
Charges to Retail Business	x	x
Total revenue	x	x
Operating costs		
Costs	x	x
CCA Adjustments		
Holding (gain) / loss and other adjustments	x	x
Supplementary depreciation	x	x
Total operating costs	x	x
Return	x	x
RETURN ON CAPITAL EMPLOYED for the year ended		
	Current Year %	Prior Year %
Return on capital employed	x	x
Return on revenue	x	x

Appendices

Appendix B2 – Statement of Capital Employed: Access Network Business

CORPORATE ENTITY

ACCESS NETWORK BUSINESS

STATEMENT OF CURRENT COST CAPITAL EMPLOYED at ...

	Current Year R'000	Prior Year R'000
Assets		
Non-current assets		
Property, plant and equipment	x	x
Investment properties	x	x
Intangible assets	x	x
Interest in subsidiaries	x	x
Investments in associates	x	x
Other investments	x	x
Deferred taxation	x	x
Non-current receivables	x	x
	<u>x</u>	<u>x</u>
Current assets		
Inventories and assets held for resale	x	x
Receivables and prepayments	x	x
Marketable securities	x	x
Cash and cash equivalents	x	x
	<u>x</u>	<u>x</u>
Total assets	<u>x</u>	<u>x</u>
Liabilities		
Non-current liabilities		
Provisions for liabilities and charges	x	x
Deferred income	x	x
Deferred tax liabilities	x	x
Other non-current liabilities	x	x
	<u>x</u>	<u>x</u>
Current liabilities		
Trade and other payables	x	x
Current tax liabilities	x	x
Bank overdrafts	x	x
Provisions for liabilities and charges	x	x
Deferred income	x	x
Dividends declared	x	x
	<u>x</u>	<u>x</u>
Total liabilities	<u>x</u>	<u>x</u>
Capital employed	<u>x</u>	<u>x</u>

Appendices

Appendix B3 – Income Statement: Core Network Business

CORPORATE ENTITY

CORE NETWORK BUSINESS

CURRENT COST INCOME STATEMENT for the year ended		
	Current Year R'000	Prior Year R'000
Revenue		
From other Operators	x	x
Charges to Retail Business	x	x
Total revenue	x	x
Operating costs		
Costs	x	x
CCA Adjustments		
Holding (gain) / loss and other adjustments	x	x
Supplementary depreciation	x	x
Total operating costs	x	x
Return	x	x
RETURN ON CAPITAL EMPLOYED for the year ended		
	Current Year %	Prior Year %
Return on capital employed	x	x
Return on revenue	x	x

Appendices

Appendix B4 – Statement of Capital Employed – Core Network Business

CORPORATE ENTITY

CORE NETWORK BUSINESS

STATEMENT OF CURRENT COST CAPITAL EMPLOYED at	Current Year R'000	Prior Year R'000
Assets		
Non-current assets		
Property, plant and equipment	x	x
Investment properties	x	x
Intangible assets	x	x
Interest in subsidiaries	x	x
Investments in associates	x	x
Other investments	x	x
Deferred taxation	x	x
Non-current receivables	x	x
	<u>x</u>	<u>x</u>
Current assets		
Inventories and assets held for resale	x	x
Receivables and prepayments	x	x
Marketable securities	x	x
Cash and cash equivalents	x	x
	<u>x</u>	<u>x</u>
Total assets	<u>x</u>	<u>x</u>
Liabilities		
Non-current liabilities		
Provisions for liabilities and charges	x	x
Deferred income	x	x
Deferred tax liabilities	x	x
Other non-current liabilities	x	x
	<u>x</u>	<u>x</u>
Current liabilities		
Trade and other payables	x	x
Current tax liabilities	x	x
Bank overdrafts	x	x
Provisions for liabilities and charges	x	x
Deferred income	x	x
Dividends declared	x	x
	<u>x</u>	<u>x</u>
Total liabilities	<u>x</u>	<u>x</u>
Capital employed	<u>x</u>	<u>x</u>

Appendices

Appendix B5 – Income Statement: Retail Business

CORPORATE ENTITY

RETAIL BUSINESS

CURRENT COST INCOME STATEMENT for the year ended

	Current Year R'000	Prior Year R'000
Revenue	x	x
Operating costs		
Charges from Access Network Business	x	x
Charges from Core Network Business	x	x
Own costs	x	x
CCA Adjustments		
Holding (gain) / loss and other adjustments	x	x
Supplementary depreciation	x	x
Total operating costs	x	x
Return	x	x

RETURN ON CAPITAL EMPLOYED for the year ended

	Current Year %	Prior Year %
Return on capital employed	x	x
Return on revenue	x	x

Appendices

Appendix B6 – Statement of Capital Employed: Retail Business

CORPORATE ENTITY

RETAIL BUSINESS

STATEMENT OF CURRENT COST CAPITAL EMPLOYED at

	Current Year R'000	Prior Year R'000
Assets		
Non-current assets		
Property, plant and equipment	x	x
Investment properties	x	x
Intangible assets	x	x
Interest in subsidiaries	x	x
Investments in associates	x	x
Other investments	x	x
Deferred taxation	x	x
Non-current receivables	x	x
	<u>x</u>	<u>x</u>
Current assets		
Inventories and assets held for resale	x	x
Receivables and prepayments	x	x
Marketable securities	x	x
Cash and cash equivalents	x	x
	<u>x</u>	<u>x</u>
Total assets	<u>x</u>	<u>x</u>
Liabilities		
Non-current liabilities		
Provisions for liabilities and charges	x	x
Deferred income	x	x
Deferred tax liabilities	x	x
Other non-current liabilities	x	x
	<u>x</u>	<u>x</u>
Current liabilities		
Trade and other payables	x	x
Current tax liabilities	x	x
Bank overdrafts	x	x
Provisions for liabilities and charges	x	x
Deferred income	x	x
Dividends declared	x	x
	<u>x</u>	<u>x</u>
Total liabilities	<u>x</u>	<u>x</u>
Capital employed	<u>x</u>	<u>x</u>

Appendices

Appendix B7 – Income Statement: Residential Access Connections

CORPORATE ENTITY

RETAIL BUSINESS - RESIDENTIAL ACCESS CONNECTIONS

CURRENT COST INCOME STATEMENT for the year ended

	Current Year R'000	Prior Year R'000
Revenue	x	x
Operating costs		
Charges from Access Network Business	x	x
Charges from Core Network Business	x	x
Own costs	x	x
CCA Adjustments		
Holding (gain) / loss and other adjustments	x	x
Supplementary depreciation	x	x
Total operating costs	x	x
Return	x	x

RETURN ON CAPITAL EMPLOYED for the year ended

	Current Year %	Prior Year %
Return on capital employed	x	x
Return on revenue	x	x

Appendices

Appendix B8 – Statement of Capital Employed: Residential Access Connections

CORPORATE ENTITY

RETAIL BUSINESS - RESIDENTIAL ACCESS CONNECTIONS

STATEMENT OF CURRENT COST CAPITAL EMPLOYED at ...

	Current Year R'000	Prior Year R'000
Assets		
Non-current assets		
Property, plant and equipment	x	x
Investment properties	x	x
Intangible assets	x	x
Interest in subsidiaries	x	x
Investments in associates	x	x
Other investments	x	x
Deferred taxation	x	x
Non-current receivables	x	x
	<u>x</u>	<u>x</u>
Current assets		
Inventories and assets held for resale	x	x
Receivables and prepayments	x	x
Marketable securities	x	x
Cash and cash equivalents	x	x
	<u>x</u>	<u>x</u>
Total assets	<u>x</u>	<u>x</u>
Liabilities		
Non-current liabilities		
Provisions for liabilities and charges	x	x
Deferred income	x	x
Deferred tax liabilities	x	x
Other non-current receivables	x	x
	<u>x</u>	<u>x</u>
Current liabilities		
Trade and other payables	x	x
Current tax liabilities	x	x
Bank overdrafts	x	x
Provisions for liabilities and charges	x	x
Deferred income	x	x
Dividends declared	x	x
	<u>x</u>	<u>x</u>
Total liabilities	<u>x</u>	<u>x</u>
Capital employed	<u>x</u>	<u>x</u>

Appendices

Appendix B9 – Retail Services Income Statement Reconciliation

CORPORATE ENTITY

RETAIL SERVICES INCOME STATEMENT RECONCILIATION

CURRENT COST INCOME STATEMENT

for the year ended (current and prior year statements required)

	Revenue R'000	Operating Costs R'000	Return R'000	Return on capital employed %	Return on revenue %
Residential access connections	x	x	x	x	x
Business access connections	x	x	x	x	x
Residential access rentals	x	x	x	x	x
Business access rentals	x	x	x	x	x
Domestic calls - short distance	x	x	x	x	x
Domestic calls - long distance	x	x	x	x	x
International calls	x	x	x	x	x
Calls to mobile	x	x	x	x	x
Calls to Internet	x	x	x	x	x
Other calls	x	x	x	x	x
Directory enquiry services	x	x	x	x	x
Public payphones	x	x	x	x	x
Domestic private circuits	x	x	x	x	x
International private circuits	x	x	x	x	x
Data services	x	x	x	x	x
Service provider services	x	x	x	x	x
Other retail services	x	x	x	x	x
Total Retail Business	x	x	x	-	-

Appendices

Appendix B10 – Retail Services Statement of Capital Employed Reconciliation

CORPORATE ENTITY

RETAIL SERVICES STATEMENT OF CAPITAL EMPLOYED RECONCILIATION

CURRENT COST STATEMENT OF CAPITAL EMPLOYED

at (current and prior year statements required)

	Non-current assets R'000	Current assets R'000	Non-current liabilities R'000	Current liabilities R'000	Capital employed R'000
Residential access connections	x	x	x	x	x
Business access connections	x	x	x	x	x
Residential access rentals	x	x	x	x	x
Business access rentals	x	x	x	x	x
Domestic calls - short distance	x	x	x	x	x
Domestic calls - long distance	x	x	x	x	x
International calls	x	x	x	x	x
Calls to mobile	x	x	x	x	x
Calls to internet	x	x	x	x	x
Other calls	x	x	x	x	x
Directory enquiry services	x	x	x	x	x
Public payphones	x	x	x	x	x
Domestic private circuits	x	x	x	x	x
International private circuits	x	x	x	x	x
Data services	x	x	x	x	x
Service provider services	x	x	x	x	x
Other retail services	x	x	x	x	x
Total Retail Business	x	x	x	x	x

Appendices

Appendix B11 – Statement of Network Component Costs – Access Network Business

CORPORATE ENTITY
ACCESS NETWORK BUSINESS

STATEMENT OF NETWORK COMPONENT COSTS

for the year ended (current and prior year statements required)

	HCA operating costs R'000	Supplementary depreciation R'000	Holding gain and other CCA adjustments R'000	Total CCA operating costs R'000	CCA capital employed R'000	Applicable rate of return on capital %	Capital costs R'000	Total of operating and capital costs R'000	Volume unit	Average cost per min/unit on a current cost basis R
Local loop - wireless	x	x	x	x	x	x	x	x	x	x
Local loop - fibre	x	x	x	x	x	x	x	x	x	x
Local loop - copper	x	x	x	x	x	x	x	x	x	x
Local loop - NTU equipment	x	x	x	x	x	x	x	x	x	x
Broadband access equipment	x	x	x	x	x	x	x	x	x	x
PSTN subscriber units - line interface cards	x	x	x	x	x	x	x	x	x	x
ISDN BRA subscriber units - line interface cards	x	x	x	x	x	x	x	x	x	x
ISDN PRA subscriber units - line interface cards	x	x	x	x	x	x	x	x	x	x
Switching - remote subscriber units - line sensitive	x	x	x	x	x	x	x	x	x	x
Switching - co-located subscriber units - line sensitive	x	x	x	x	x	x	x	x	x	x
Local access connections	x	x	x	x	x	x	x	x	x	x
Total	x	x	x	x	x	-	x	x	-	-

Appendices

Appendix B12 – Statement of Network Component Costs – Core Network Business

CORPORATE ENTITY
CORE NETWORK BUSINESS

STATEMENT OF NETWORK COMPONENT COSTS
for the year ended (current and prior year statements required)

	HCA operating costs R'000	Supplementary depreciation R'000	Holding gain and other CCA adjustments R'000	Total CCA operating costs R'000	CCA capital employed R'000	Applicable rate of return on capital %	Capital costs R'000	Total of operating and capital costs R'000	Volume unit	Average cost per min/unit on a current cost basis R
Switching										
Remote subscriber units - traffic sensitive	x	x	x	x	x	x	x	x	x	x
Local switches - traffic sensitive	x	x	x	x	x	x	x	x	x	x
Trunk switches - traffic sensitive	x	x	x	x	x	x	x	x	x	x
International switches - traffic sensitive	x	x	x	x	x	x	x	x	x	x
Interswitch Transmission										
Remote subscriber unit - Local switch	x	x	x	x	x	x	x	x	x	x
Local switch - Local switch	x	x	x	x	x	x	x	x	x	x
Local switch - Trunk switch	x	x	x	x	x	x	x	x	x	x
Trunk switch - Trunk switch	x	x	x	x	x	x	x	x	x	x
Trunk switch - International switch	x	x	x	x	x	x	x	x	x	x
Local switch - International switch	x	x	x	x	x	x	x	x	x	x
International switch - International switch	x	x	x	x	x	x	x	x	x	x
Other Components										
Data and private circuits transmission	x	x	x	x	x	x	x	x	-	-
International transmission	x	x	x	x	x	x	x	x	-	-
Interconnect links	x	x	x	x	x	x	x	x	-	-
Data and private circuits switching	x	x	x	x	x	x	x	x	-	-
Intelligent network	x	x	x	x	x	x	x	x	-	-
Directory enquiry services	x	x	x	x	x	x	x	x	-	-
Emergency services	x	x	x	x	x	x	x	x	-	-
Operator services	x	x	x	x	x	x	x	x	-	-
Public payphones	x	x	x	x	x	x	x	x	-	-
Outpayments - International	x	x	x	x	x	x	x	x	-	-
Outpayments - other	x	x	x	x	x	x	x	x	-	-
Interconnect product management	x	x	x	x	x	x	x	x	-	-
Other components	x	x	x	x	x	x	x	x	-	-
Total	x	x	x	x	x	-	x	x	-	-

Appendices

Appendix B13 – Statement of Network Service Costs – Access Network Business

CORPORATE ENTITY
ACCESS NETWORK BUSINESS

STATEMENT OF NETWORK SERVICE COSTS

for the year ended ... (current year and prior year statements required)

STATEMENT OF NETWORK SERVICE COSTS

for the year ended ... (current year and prior year statements required)

	Total Cost R'000	Average Component Cost Cents	Retail Services								
			Residential access connections	Business access connections	Residential access rentals	Business access rentals	Public Payphones	Domestic Leased Circuits	International Leased Circuits	Data Services	Service provider services
			Percentage								
Local loop - wireless	x	x	x	x	x	x	x	x	x	x	x
Local loop - fibre	x	x	x	x	x	x	x	x	x	x	x
Local loop - copper	x	x	x	x	x	x	x	x	x	x	x
Local loop - NTU equipment	x	x	x	x	x	x	x	x	x	x	x
Broadband access equipment	x	x	x	x	x	x	x	x	x	x	x
PSTN subscriber units - line interface cards	x	x	x	x	x	x	x	x	x	x	x
ISDN BRA subscriber units - line interface cards	x	x	x	x	x	x	x	x	x	x	x
ISDN PRA subscriber units - line interface cards	x	x	x	x	x	x	x	x	x	x	x
Switching - remote subscriber units - line sensitive	x	x	x	x	x	x	x	x	x	x	x
Switching - co-located subscriber units - line sensitive	x	x	x	x	x	x	x	x	x	x	x
Local access connections	x	x	x	x	x	x	x	x	x	x	x
Average network service cost R'000			x	x	x	x	x	x	x	x	x
Volume (units)			x	x	x	x	x	x	x	x	x
Total network service cost (R'000)	x		x	x	x	x	x	x	x	x	x

Appendices

Appendix B14 – Statement of Network Service Costs – Core Network Business

CORPORATE ENTITY
CORE NETWORK BUSINESS

STATEMENT OF NETWORK SERVICE COSTS
for the year ended ... (current year and prior year statements required)

for the year ended ... (current year and prior year statements required)			Retail Services														Interconnection Services				
	Total Cost R'000	Average Component Cost Cents	Domestic Calls - Short Distance	Domestic Calls - Long Distance	International Calls	Calls to Mobile	Calls to Internet	Directory Enquiries	Other Calls	Public Payphones	Domestic Leased Circuits	International Leased Circuits	Data Services	Service provider services	Other Retail	Call origination	Call termination	Transit	Circuits	Other	
Switching																					
Remote subscriber units - traffic sensitive	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x		x	x	x	x	x
Local switches - traffic sensitive	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x		x	x	x	x	x
Trunk switches - traffic sensitive	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x		x	x	x	x	x
International switches - traffic sensitive	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x		x	x	x	x	x
Interswitch Transmission																					
Remote subscriber unit - Local switch	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x		x	x	x	x	x
Local switch - Local switch	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x		x	x	x	x	x
Local switch - Trunk switch	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x		x	x	x	x	x
Trunk switch - Trunk switch	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x		x	x	x	x	x
Trunk switch - International switch	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x		x	x	x	x	x
Local switch - International switch	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x		x	x	x	x	x
International switch - International switch	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x		x	x	x	x	x
Other Components																					
Percentage																					
Data and private circuits transmission	x	-	x	x	x	x	x	x	x	x	x	x	x	x	x		x	x	x	x	x
International transmission	x	-	x	x	x	x	x	x	x	x	x	x	x	x	x		x	x	x	x	x
Interconnect links	x	-	x	x	x	x	x	x	x	x	x	x	x	x	x		x	x	x	x	x
Data and private circuits switching	x	-	x	x	x	x	x	x	x	x	x	x	x	x	x		x	x	x	x	x
Intelligent network	x	-	x	x	x	x	x	x	x	x	x	x	x	x	x		x	x	x	x	x
Directory enquiry services	x	-	x	x	x	x	x	x	x	x	x	x	x	x	x		x	x	x	x	x
Emergency services	x	-	x	x	x	x	x	x	x	x	x	x	x	x	x		x	x	x	x	x
Operator services	x	-	x	x	x	x	x	x	x	x	x	x	x	x	x		x	x	x	x	x
Public payphones	x	-	x	x	x	x	x	x	x	x	x	x	x	x	x		x	x	x	x	x
Outpayments - international	x	-	x	x	x	x	x	x	x	x	x	x	x	x	x		x	x	x	x	x
Outpayments - other	x	-	x	x	x	x	x	x	x	x	x	x	x	x	x		x	x	x	x	x
Interconnect product management	x	-	x	x	x	x	x	x	x	x	x	x	x	x	x		x	x	x	x	x
Other components	x	-	x	x	x	x	x	x	x	x	x	x	x	x	x		x	x	x	x	x
Average network service costs (cents)																					
Volume (minutes)																					
Total network service cost R'000																					
Total Retail Services																Total Interconnect services					

Appendix B15 – Statement of Costs on a Long Run Incremental Cost Basis (With and Without Mark-up)

CORPORATE ENTITY

CORE CONVEYANCE NETWORK BUSINESS

STATEMENT OF COSTS ON A LONG RUN INCREMENTAL COST BASIS (WITH AND WITHOUT MARKUP)
for the year ended ... (current year and prior year statements required)

	Operating costs R'000	Capital employed R'000	Applicable rate of return on capital %	Capital costs R'000	Total of operating and capital costs R'000	Volume unit	Average cost per min/unit on an incremental cost basis R'000
Switching							
Remote subscriber units - traffic sensitive	x	x	x	x	x	x	x
Local switches - traffic sensitive	x	x	x	x	x	x	x
Trunk switches - traffic sensitive	x	x	x	x	x	x	x
International switches - traffic sensitive	x	x	x	x	x	x	x
Interswitch Transmission							
Subscriber unit - Local switch	x	x	x	x	x	x	x
Local switch - Local switch	x	x	x	x	x	x	x
Local switch - Trunk switch	x	x	x	x	x	x	x
Trunk switch - Trunk switch	x	x	x	x	x	x	x
Trunk switch - International switch	x	x	x	x	x	x	x
Local switch - International switch	x	x	x	x	x	x	x
International switch - International switch	x	x	x	x	x	x	x
Other components							
International transmission	x	x	x	x	x	-	-
Interconnect links	x	x	x	x	x	-	-
Data and private circuits transmission	x	x	x	x	x	-	-
Intelligent network	x	x	x	x	x	-	-
Interconnect product management	x	x	x	x	x	-	-
Total	x	x	-	x	x	-	-

Appendices

Appendix B16 – Income Statement Reconciliation

CORPORATE ENTITY

RECONCILIATION STATEMENT

CURRENT COST INCOME STATEMENT

for the year ended ... (current year and prior year reconciliations required)

	Revenue R'000	Operating costs R'000	Return R'000
Segment			
Access Network Business	x	x	x
Core Network Business	x	x	x
Retail Business	x	x	x
Regulated	x	x	x
Unregulated	x	x	x
Total	x	x	x
Adjustments			
Elimination of inter-segment revenue and costs	x	x	x
CCA adjustments - Supplementary depreciation	-	x	x
CCA adjustments - Holding gains/losses	-	x	x
Corporate Entity's share of profits of associates and joint ventures	-	x	x
Interest charges	-	x	x
Minority interests	-	x	x
Extraordinary items	-	x	x
Other (specify)	-	x	x
Net profit as in the statutory financial statements	x	x	x

Appendices

Appendix B17 – Statement of Capital Employed Reconciliation

CORPORATE ENTITY

RECONCILIATION STATEMENT

STATEMENT OF CURRENT COST CAPITAL EMPLOYED at ...

	Current Year R'000	Prior Year R'000
Segment		
Access Network Business	x	x
Core Network Business	x	x
Retail Business	x	x
Regulated	x	x
Unregulated	x	x
Total	x	x
Adjustments		
CCA adjustments	x	x
Interest bearing borrowings	x	x
Minority interests	x	x
Other (specify)	x	x
As in the statutory financial statements	x	x

Appendices

Appendix C – Detailed Chart of Accounts

Note: "Bolded" accounts are summary accounts

Account	Account Title	Account Description
ASSETS		
1	Non-current assets	Sum of non-current asset accounts
1.1	Property, plant and equipment	Sum of property, plant and equipment accounts
1.1.1	Cost/Valuation	Sum of cost of property, plant and equipment accounts
1.1.11	Network equipment	Sum of network equipment accounts
1.1.111	Switching equipment	Sum of switching equipment accounts
1.1.1111	Remote subscriber units	Remote concentrators and associated equipment
1.1.1112	Local digital switches	Stored programme control local digital switches and associated equipment, including operating software.
1.1.1113	Trunk digital switches	Stored programme control trunk digital switches and associated equipment, including operating software.
1.1.1114	International digital switches	Stored programme control international digital switches and associated equipment, including operating software.
1.1.1115	Intelligent network equipment	Intelligent network equipment, including service creation environment, service management systems, etc.
1.1.1116	Analogue switches	Stored programme controls analogue electronic switches and associated equipment, including initial operating software.
1.1.1117	Special service switching equipment	Operator services and other special services switching equipment
1.1.112	Access equipment	Sum of access equipment accounts
1.1.1121	Wireless local loop equipment	Wireless local loop equipment
1.1.1122	ISDN network termination units	ISDN network termination units
1.1.1123	Broadband access equipment	Broadband access equipment, including digital subscriber line access multiplexors (DSLAMS), modems, ADSL equipment etc.
1.1.1124	Pair gain equipment	Pair gain equipment
1.1.1125	Network termination equipment	Network termination equipment
1.1.1126	Other access equipment	Repeaters, multiplexors, Main Distribution Frames ("MDF") etc.
1.1.113	Data and leased lines equipment	Sum of data and leased lines equipment accounts
1.1.1131	IP equipment	Routers and associated IP equipment
1.1.1132	ATM equipment	ATM switches and associated equipment
1.1.1133	Frame relay equipment	Frame relay switches and associated equipment
1.1.1134	X25 equipment	X25 switches and related equipment
1.1.1135	Leased lines equipment	Leased line equipment
1.1.114	Transmission infrastructure	Sum of transmission infrastructure accounts
1.1.1141	Metallic cable	Metallic cable including copper pairs, buried in duct or attached to poles
1.1.1142	Fibre cable	Fibre optic cable installed in duct or connected to poles
1.1.1143	Submarine cable	Submarine cable including backhaul element
1.1.1144	Poles	Poles, cross arms, guys and other materials used in the construction of pole lines.
1.1.1145	Masts and towers	Radio masts and towers

Appendices

Account	Account Title	Account Description
1.1.1146	Duct and trenches	Duct and trenching used to carry metallic and fibre cable. Includes manholes
1.1.1147	Cabinets	Roadside and other cabinets
1.1.115	Transmission equipment	Sum of transmission equipment accounts
1.1.1151	Optical PDH equipment	Optical PDH transmission equipment including terminal and add-drop multiplexors, repeaters, etc.
1.1.1152	Optical SDH equipment	Optical SDH transmission equipment including multiplexors, repeaters, etc.
1.1.1153	Optical DWDM equipment	Optical DWDM transmission equipment including multiplexors, repeaters, etc.
1.1.1154	PDH equipment – radio/microwave	PDH equipment – radio/microwave
1.1.1155	SDH equipment – radio/microwave	SDH equipment – radio/microwave
1.1.1156	xDSL transmission equipment	Digital subscriber line transmission equipment. For example, High bit-rate Digital Subscriber Loop (HDSL), which can carry 2Mbit/s over three copper pairs and Very High-rate Digital Subscriber Line (VHDSL) which has a potential bandwidth of 20 Mbit/s
1.1.1157	Analogue transmission equipment	Analogue transmission equipment
1.1.1158	Satellite systems	Satellite systems including earth stations and associated equipment
1.1.1159	Submarine transmission systems	Submarine transmission systems
1.1.1160	Transmission distribution frames	Optical and other transmission distribution frames
1.1.1161	Other transmission equipment	Other transmission equipment
1.1.117	Other plant	Sum of other plant accounts
1.1.1171	Public payphone equipment	Telephone sets and kiosks used to provide public and semi-public payphone services
1.1.1172	Telex equipment	Dedicated telex equipment
1.1.1174	Directory enquiry services equipment	Directory enquiry services equipment
1.1.1175	Directory assistance systems	Directory assistance systems
1.1.1176	Network management systems – switching	Network management systems associated with switching
1.1.1177	Network management systems – transmission	Network management systems associated with transmission
1.1.1178	Network management systems – data	Network management systems associated with data networks
1.1.1179	Network management systems – infrastructure	Network management systems which capture the location and identity of network assets
1.1.1180	Network management systems – other	Other network management systems
1.1.119	Support plant	Sum of support plant accounts
1.1.1191	Test equipment	Test equipment
1.1.1192	Power equipment	Power equipment, for example, generators and power equipment racks
1.1.1193	Air conditioning equipment	Air-conditioning equipment
1.1.1194	Other support plant and equipment	Other support plant and equipment

Appendices

Account	Account Title	Account Description
1.1.12	Land and buildings	Sum of land and buildings accounts
1.1.1201	Land	Land used in providing telecommunications service and administrative buildings. Includes easements, land improvements but excludes buildings and other structures
1.1.1202	Buildings – general purpose	General-purpose buildings, for example, administration/head office building. Includes integral accommodation plant
1.1.1203	Buildings – special purpose	Buildings – special purpose, for example, switch buildings
1.1.13	Non-network plant and equipment	Sum of non-network plant and equipment accounts
1.1.131	Furniture and office equipment	Sum of furniture and office equipment accounts
1.1.1311	Furniture and office equipment	Furniture and office equipment, for example faxes and photocopiers
1.1.132	Information technology	Sum of information technology accounts
1.1.1321	General purpose PCs and peripherals	Computers and peripheral devices which are designed to perform general administrative information processing activities. Excludes computers and associated peripheral devices and initial software associated with switching, network signalling, network operations or other specific telephone network plant.
1.1.1322	Hardware	Hardware, including mainframe and mini-computers, Local Area Network (LAN) equipment and terminals
1.1.1323	Software – general	General purpose software, for example, operating system software
1.1.1324	Software – billing systems	Software for retail and wholesale billing systems
1.1.1325	Software – finance and other systems	Software – finance and other systems, for example, human resources systems
1.1.133	Vehicles	Sum of vehicles accounts
1.1.1331	General purpose vehicles	Motorised and non-motorised vehicles of the type designed and routinely licensed to operate on public streets and highways
1.1.1332	Special purpose vehicles	Vehicles specially designed for telecommunications or construction purposes, including pole setting vehicles, trenchers, platform trucks and similar vehicles.
1.1.134	Customer premises equipment	Sum of customer premises equipment accounts
1.1.1341	PBX equipment	Private branch exchanges and private dial systems that do not constitute private payphones, including the cost of spare parts needed to support PBX equipment.
1.1.1342	Private payphones	All private payphones except pay telephones and telephone sets used for mobile services
1.1.1343	Dedicated customer premises private circuit equipment	Dedicated private circuit equipment located at customer premises
1.1.1344	Other CPE	Other CPE, including telephone handsets, routers, modems, dial-in equipment etc.
1.1.135	Other	Sum of other accounts
1.1.1351	Other non-network plant and equipment	Other non-network plant and equipment, for example, works of art
1.1.2	Capital work in progress	Sum of construction in progress accounts
1.1.2111 – 1.1.2432	Capital work in progress accounts	Described in as much detail as property, plant and equipment accounts
1.1.3	Accumulated depreciation	Sum of accumulated depreciation accounts
1.1.3111 – 1.1.3432	Accumulated depreciation accounts	Described in as much detail as property, plant and equipment accounts

Appendices

Account	Account Title	Account Description
1.2	Investment properties	Sum of investment property accounts
1.2.0000	Investment properties	Plant held by the Operator and of the type used in providing fixed landline telecommunications services but which does not have a definite plan for use. Generally, such plant will not be used for at least two years into the future.
1.3	Intangible assets	Sum of intangible asset accounts
1.3.1000	Licences	Capitalised value of national licence net of amortisation
1.3.2000	Permits and rights of way	Permits and rights-of-way
1.3.3000	Patents, copyrights, trademarks	Patents, copyrights and trademarks, trade names, secret formulas, and capitalised subscriber acquisition costs incurred during the start-up period.
1.3.5000	Capitalised development costs	Development costs that have been capitalised because they are expected to yield future benefits.
1.3.6000	Other intangible assets	Other intangible assets, for example goodwill.
1.4	Interest in subsidiaries	Sum of interest in subsidiaries accounts
1.4.1000	Interest in subsidiaries	Loans to and investments in subsidiary companies
1.5	Investments in associates	Sum of investment in associates accounts
1.5.1000	Investments in associates	Carrying amount of investment in associates (share of investment and share of profits)
1.6	Other investments	Sum of other investment accounts
1.6.1000	Other investments	Other investments, for example, listed investments
1.7	Deferred taxation	Sum of deferred tax accounts
1.7.1000	Deferred taxation	Deferred tax assets
1.8	Non-current receivables	Sum of non-current receivables accounts
1.8.1000	Non-current receivables	Non-current receivables, for example, loans to directors
2	Current Assets	Sum of current asset accounts
2.1	Inventories and assets held for resale	Sum of inventories and assets held for resale accounts
2.1.1000	Inventories	Materials and supplies held for use or sale within the next twelve months, including raw materials, store supplies, spare parts and small value tools and test sets that have not been issued and placed in service. Inventories shall be reported net of provisions for obsolescence.
2.2	Receivables and prepayments	Sum of receivables and prepayment accounts
2.2.1010	Accounts receivable – retail customers	Amounts due from retail customers for telecommunications services collectable within the next 12 months
2.2.1020	Accounts receivable – service providers	Amounts due from service providers for telecommunications services collectable within the next 12 months
2.2.1030	Accounts receivable – other Operators	Amounts due from other Operators for telecommunications services collectable within the next 12 months
2.2.1040	Accounts receivable – Affiliates	Amounts due from Affiliates excluding Service Providers for telecommunications services collectable within the next 12 months
2.2.2010	Short term loans – non Affiliates	Loans made to non-Affiliates repayable within the next twelve months.
2.2.2020	Short term loans – Affiliates	Loans made to Affiliates repayable within the next twelve months.
2.2.3010	Provision for doubtful accounts – retail customers	Provision against amounts due from retail customers for telecommunications services
2.2.3020	Provision for doubtful accounts – service providers	Provision against amounts due from service providers for telecommunications services

Appendices

Account	Account Title	Account Description
2.2.3030	Provision for doubtful accounts – other Operators	Provision against amounts due from other Operators for telecommunications services
2.2.3040	Provision for doubtful accounts – Affiliates	Provision against amounts due from Affiliates for telecommunications services
2.2.4000	Other receivables	Other non-telecommunications related amounts due and collectable within twelve months net of any doubtful amount.
2.2.5000	Prepayments	Amounts paid in advance of the period in which they are chargeable against income, except amounts chargeable to plant under construction. Includes prepaid rents, taxes, insurance and other expenses that are expected to be incurred within the next twelve months.
2.2.6000	VAT Receivable	VAT receivable
2.3	Marketable securities	Sum of marketable securities accounts
2.3.1000	Marketable securities	Trading portfolio of listed investments
2.3.2000	Other financial assets	Other financial assets not expected to be held for longer than 12 months, for example, interest rate swaps.
2.4	Cash and cash equivalents	Sum of cash and cash equivalents accounts
2.4.1000	Cash and cash equivalents	Bank and cash balances, special cash and term deposits, cash in transit, and negotiable instruments which are readily convertible to cash.
EQUITY AND LIABILITIES		
3	Capital and reserves	Sum of capital and reserve accounts
3.1	Share capital	Sum of share capital accounts
3.1.1000	Share capital	Amounts received for ordinary or preferred shares, at par value or the stated amount
3.2	Share premium	Sum of share premium accounts
3.2.1000	Share premium	Amounts received in excess of par value for ordinary or preferred share capital
3.3	Retained earnings	Sum of retained earnings accounts
3.3.1000	Retained earnings	Retained earnings
3.4	Revaluation and other reserves	Sum of revaluation and other reserve accounts
3.4.1000	Asset revaluation reserve	Surplus arising from the revaluation of property, plant and equipment
3.4.2000	Other revaluation reserve	Surplus arising from the revaluation of assets excluding property, plant and equipment, for example, marketable securities
3.4.3000	Other reserves	Reserves other than revaluation reserves, for example, insurance reserve
4	Non-current liabilities	Sum of non-current liability accounts
4.1	Interest bearing borrowings	Sum of interest bearing borrowings accounts
4.1.1000	Interest bearing borrowings	Principal amounts not due within 12 months, including bank loans, debentures, mortgages, financial leases and promissory notes
4.2	Provisions for liabilities and charges	Sum of provisions for liabilities and charges accounts
4.2.1000	Provisions for liabilities and charges	Provisions for liabilities not due within 12 months, for example, retirement benefit obligations
4.3	Deferred income	Sum of deferred income accounts
4.3.1000	Deferred income	Income that has been deferred until the expense is recognised

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Account	Account Title	Account Description
4.4	Deferred tax liabilities	Sum of deferred tax liability accounts
4.4.1000	Deferred tax liabilities	Deferred tax liability
4.5	Other non-current liabilities	Sum of other non-current liability accounts
4.5.1000	Long term debts owed to Affiliates	Principal amounts not due within 12 months
4.5.2000	Long term Licence fees payable	Portion of Licence fees not due within 12 months
4.5.3000	Other non-current liabilities	Other non-current liabilities, for example, warranty claims
5	Current liabilities	Sum of current liability accounts
5.1	Trade and other payables	Sum of trade and other payables accounts
5.1.1000	Trade creditors	Amounts due and payable to suppliers within twelve months
5.1.3000	Amounts due to other Operators	Amounts due and payable to other Operators within twelve months
5.1.4000	Amounts due to Affiliates	Amounts due and payable to Affiliates within twelve months
5.1.5000	Accrued expenses	Liabilities to pay for goods or services that have been received or supplied but have not been paid, invoiced or formally agreed with the supplier, including amounts due to employees (for example, amounts relating to accrued vacation pay)
5.1.6000	Customer deposits	Cash deposited with the Operator as security for the payment of telecommunications services.
5.1.7000	Other creditors	Other creditors, for example, RSC levies
5.1.8000	VAT payable	VAT payable
5.2	Current tax liabilities	Sum of current tax liability accounts
5.2.1000	Current tax liabilities	Taxes payable
5.3	Current portion of borrowings	Sum of current portion of borrowings accounts
5.3.1000	Current portion of borrowings	Principal amounts due within 12 months
5.4	Bank overdrafts	Sum of bank overdraft accounts
5.4.1000	Bank overdrafts	Bank overdrafts
5.5	Provisions for liabilities and charges	Sum of provisions for liabilities and charges accounts
5.5.1000	Provisions for liabilities and charges	Provisions for liabilities and charges due within 12 months
5.6	Deferred income	Sum of deferred income accounts
5.6.1000	Deferred income	Revenue received in advance that has not yet accrued
5.7	Dividends declared	Sum dividends declared accounts
5.7.1000	Dividends declared	Dividends declared and payable
6	Revenue	Sum of revenue accounts
6.1	Retail revenue	Sum of retail revenue accounts
6.1.1	Connections and rentals	Sum of connection and rental revenue accounts
6.1.1110	Basic line connections - residential	Basic line connections - residential revenue
6.1.1120	Basic line connections - business	Basic line connections - business revenue
6.1.1210	ISDN connections - residential	Basic rate and primary rate
6.1.1220	ISDN connections - business	Basic rate and primary rate
6.1.1310	High speed access connections - residential	High speed access connections - residential revenue
6.1.1320	High speed access connections - business	High speed access connections - business revenue
6.1.1410	Basic line rentals - residential	Basic line rentals - residential revenue
6.1.1420	Basic line rentals - business	Basic line rentals - business revenue

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Account	Account Title	Account Description
6.1.1510	ISDN line rentals – residential	ISDN line rentals – residential revenue, including basic and primary rate ISDN
6.1.1520	ISDN line rentals – business	ISDN line rentals – business revenue, including basic and primary rate ISDN
6.1.1610	High speed access rentals – residential	High speed access rentals – residential revenue, for example ADSL
6.1.1620	High speed access rentals – business	High speed access rentals – business revenue, for example ADSL
6.1.2	Voice revenue	Sum of voice revenue accounts
6.1.2110	Local calls	Local calls revenue, as defined
6.1.2120	National calls	National calls revenue, as defined
6.1.2130	International calls	International calls revenue, as defined
6.1.2140	Calls to mobile	Calls to mobile revenue, as defined
6.1.2150	Calls to internet	Calls to internet revenue, as defined
6.1.2160	Other call usage	Other call usage revenue
6.1.3	Other PSTN	Sum of other PSTN revenue accounts
6.1.3110	Directory enquiry services	Directory enquiry services revenue, as defined
6.1.3120	Directory assistance	Directory assistance revenue
6.1.3130	Public payphones	Initial and additional usage charge revenues for calls made from public telephones, as defined
6.1.4	Leased lines and data	Sum of leased lines and data revenue accounts
6.1.4110	Domestic private circuits	Revenues from dedicated circuits, private switching arrangements and/or predefined switching paths, whether physical or virtual, between specific locations within the country.
6.1.4120	International private circuits	Revenues from dedicated circuits, private switching arrangements and/or predefined switching paths, whether physical or virtual, between domestic and international locations.
6.1.4130	Data services	Data services revenue
6.1.5	Value added services	Sum of value added services revenue accounts
6.1.5000	Value added services	Value added services revenue
6.1.6	Equipment supply	Sum of equipment supply revenue accounts
6.1.6110	Equipment sales	Equipment sales
6.1.6120	Equipment rentals	Equipment rentals
6.2	Wholesale revenue	Sum of wholesale revenue accounts
6.2.1010	Receipts from overseas Operators	Receipts from overseas Operators for interconnection
6.2.1020	Interconnection – circuits	Interconnection – circuits revenue
6.2.1030	Interconnection – transit	Interconnection – transit revenue
6.2.1040	Interconnection – call termination	Interconnection – call termination revenue
6.2.1050	Interconnection – call origination	Interconnection – call origination revenue
6.3	Miscellaneous revenue	Sum of miscellaneous revenue accounts
6.3.1110	Directory revenues	Revenues derived from alphabetical and classified sections of telephone directories. Includes fees received from other entities for the right to publish the Operator's directories, amounts charged for additional or boldfaced listings, marginal displays, inserts and other advertisements and charges for unlisted and non-published telephone numbers.

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Account	Account Title	Account Description
6.3.1120	Rental revenues	Revenues from the rental to others of telecommunications plant furnished apart from telecommunications services. Includes revenue from the rental of conduit and pole space, and rental of shared facilities to other network Operators. Excludes incidental rental of land and buildings for non-telecommunications purposes.
6.3.1130	Service provider revenues	Revenues from service providers under neither retail nor wholesale terms. For example, revenues from VANs
6.3.1140	Other revenues	Other retail revenue not highlighted above
7	Direct costs	Sum of direct costs accounts
7.1	Discounts and incentives	Sum of discount and incentive accounts
7.1.1000	Volume discounts	Discounts based on volumes of usage or services purchased
7.1.2000	Other incentives	Other incentives. Should be sub-accounted by segment where possible.
7.2	Interconnection/wholesale costs	Sum of interconnection/wholesale cost accounts
7.2.1000	Payments to overseas administrators	Payments to overseas administrators for interconnection
7.2.2000	Payments to Mobile Operators	Payments to Mobile Operators for interconnection
7.2.3000	Payments to PSTS Licensees	Payments to PSTS Licensees for interconnection
7.3	Other direct costs	Sum of other direct costs accounts
7.3.1000	Calling cards	The costs of providing calling cards
7.3.2000	Other direct costs	Other direct costs not included elsewhere
8	Operating expenses	Sum of operating costs accounts
8.1	Operational expenses	Sum of operating costs accounts
8.1.1	Product and customer management	Sum of product and customer management accounts
8.1.1100	Product development costs	Pure and applied research into new or potential telecommunications products and processes. Excludes routine alterations to existing products and processes.
8.1.1200	Product management costs	Costs of administrative activities related to managing products and services, including competitive analysis, product and service identification and specification, test marketing, market planning, demand forecasting, product life cycle analysis, pricing and establishment of distribution channels.
8.1.1300	Sales and marketing costs	Costs of selling and marketing products and services, including determination of customer needs, development of proposals, preparation of sales orders and sales records.
8.1.1400	Advertising costs	Service specific and general corporate advertising costs
8.1.1450	Sponsorship costs	Sponsorship costs
8.1.1500	Retail billing function costs	Costs of maintaining and billing customer accounts and collecting revenues from customers. Expenses in connection with processing detailed message records and other information in order to calculate and prepare customer bills. Amounts paid to another service provider for bill processing and handling.
8.1.1600	Wholesale billing function costs	Wholesale billing function costs
8.1.1700	Carrier service function costs	The costs of dealing with other Operators, for example, setting up interconnection rates
8.1.1800	Customer management costs	Customer management costs, for example, chasing debt
8.1.1900	Bad debts expense	Write-offs or provisions against receivables that are not recoverable.

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Account	Account Title	Account Description
8.1.2	Network management	Sum of network management accounts
8.1.2100	Network design and planning costs	Network design and planning costs
8.1.2200	Network management costs	Expenses incurred in administration of the network including such activities as traffic control, administering traffic measurements, monitoring network performance, assigning equipment, load balancing, collecting and analysing traffic data, administering trunking and assigning facilities and circuits.
8.1.3	Network maintenance	Sum of network maintenance accounts
8.1.3100	Switching equipment maintenance	Maintenance and repair expense of switching equipment
8.1.3200	Access equipment maintenance	Maintenance and repair expense of access equipment
8.1.3300	Data and leased lines equipment maintenance	Maintenance and repair expense of data and leased lines equipment
8.1.3400	Transmission infrastructure maintenance	Maintenance and repair expense of transmission infrastructure
8.1.3500	Transmission equipment maintenance	Maintenance and repair expense of transmission equipment
8.1.3600	Other plant maintenance	Maintenance and repair expense of other plant
8.1.3700	Support plant maintenance	Maintenance and repair expense of support plant
8.1.4	Other maintenance	Sum of other maintenance accounts
8.1.4100	Land and buildings maintenance	Maintenance and repair expense of land and buildings
8.1.4200	Information technology equipment maintenance	Maintenance and repair expense of information technology equipment
8.1.4300	Motor vehicle maintenance	Maintenance and repair expense of motor vehicles
8.1.4400	Customer premises equipment maintenance	Maintenance and repair expense of customer premises equipment
8.1.4500	Other non-network equipment maintenance	Maintenance and repair expense of other non-network equipment
8.1.5	Other operating costs	Sum of other operating cost accounts
8.1.5100	Licence fees	Licence fees in respect of the holding of a telecommunications services licence.
8.1.5200	Warehouse management costs	Expenses in the provisioning of materials and supplies, including office supplies. Includes receiving, stocking, filling requisitions, monitoring and replenishing stock levels, delivery, storage, and administration costs.
8.1.5300	Transport management costs	Expenses relate to transport management, for example, fleet manager.
8.1.5400	Research and development costs	Research is original and planned investigation undertaken with the prospect of gaining new scientific or technical knowledge and understanding. Development is the application of research findings or other knowledge to a plan or design for the production of new or substantially improved materials, devices, products, processes, systems or services prior to the commencement of commercial production or use.
8.1.5510	Accommodation costs – general purpose	Accommodation costs, for example cleaning and security for general purpose buildings
8.1.5520	Accommodation costs – special purpose	Accommodation costs, for example cleaning and security for special purpose buildings
8.1.5600	Electricity and power costs	Electricity and power costs

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Account	Account Title	Account Description
8.1.5700	Foreign exchange gains and losses	Gains or losses arising out of fluctuations in exchange rates from foreign exchange transactions
8.1.5800	Gain/loss on asset disposals	Net profit or loss arising on the disposal of an asset (amount by which proceeds either exceeds or falls short of book value of asset being disposed of)
8.1.5910	Property taxes	Property taxes, for example, rates.
8.1.5920	Other taxes	Any other taxes and levies not described above
8.2	Business support costs	Sum of business support cost accounts
8.2.1000	Human resource function costs	Expenses incurred in performing personnel administration activities.
8.2.2000	Finance function costs	Costs of accounting and financing services including payroll, disbursements, property accounting, capital recovery, tax accounting, auditing, budget preparation and analysis, general accounting, and financial services.
8.2.3000	Procurement costs	Expenses in connection with procuring materials, supplies and service contracts, including evaluating products, selecting vendors, negotiating contracts, placing purchase orders, and administration of the materials and supplies procurement process.
8.2.4000	Regulatory function costs	Costs incurred in maintaining relations with regulators, government agencies and the general public. Includes preparing information requested by regulatory bodies, tariff preparation, public relations and investor relations.
8.2.5000	Legal function costs	Costs of legal services including internal and external counsel, court costs, filing fees, witness costs, transcription fees and similar costs of conducting litigation or preparing contracts and other legal documents.
8.2.6000	Information systems function costs	Costs of planning, developing, testing, implementing and maintaining databases and application systems on general-purpose computers.
8.2.7000	Executive and planning function costs	Expenses in connection with policy setting and overall management of the company, including expenses of Board of Directors and all officers of the company and their staff. Also includes costs of long term planning, organisation studies, management studies, strategic planning, contingency planning and economic analysis.
8.3	Depreciation, lease and rentals	Sum of depreciation, lease and rental accounts
8.3.1	Depreciation	Sum of depreciation accounts
8.3.1111 – 8.3.1432	<i>Depreciation accounts</i>	<i>Described in as much detail as property, plant and equipment accounts</i>
8.3.2	Supplementary depreciation	Sum of depreciation accounts
8.3.2111 – 8.3.2432	<i>Supplementary depreciation accounts</i>	<i>Described in as much detail as property, plant and equipment accounts</i>
8.3.3	Holding gains/losses	Sum of depreciation accounts
8.3.3111 – 8.3.3432	<i>Holding gains/losses accounts</i>	<i>Described in as much detail as property, plant and equipment accounts</i>
8.3.4	Lease and rental expenses	Sum of lease and rental expense accounts
8.3.4111 – 8.3.4432	<i>Lease and rental expense accounts</i>	<i>Described in as much detail as property, plant and equipment accounts</i>
9	Non operating items	Sum of non operating items accounts
9.1	Income from investments	Sum of income from investment accounts
9.1.1000	Interest received	Interest received

Appendices

Account	Account Title	Account Description
9.1.2000	Other income from investments	Other investment income, for example, dividends from subsidiaries
9.2	Finance charges	Sum of finance charge accounts
9.2.1000	Interest payable on interest bearing borrowings	Interest expense during the period less interest capitalised to construction in progress, for interest bearing borrowings
9.2.2000	Other interest payable	Other interest expense during the period less interest capitalised to construction in progress.
9.2.3000	Other financial charges	Other financial charges
9.3	Taxation	Sum of taxation accounts
9.3.1000	Corporate tax	Taxes for the current period
9.4	Extraordinary items	Sum of extraordinary items accounts
9.4.1000	Extraordinary items	Income or expenses that arise from events or transactions that are clearly distinct from the ordinary activities of the enterprise and therefore are not expected to recur frequently or regularly.
9.5	Dividends	Sum of dividend accounts
9.5.1000	Dividends	Dividends declared to shareholders during the current period.

Appendices

Appendix D – Chart of Accounts Cost Pool Categorisation

Property, plant and equipment

Property, plant and equipment accounts (cost or valuation, accumulated depreciation, depreciation, supplementary depreciation etc) are all categorised in the same manner. Cost accounts only are illustrated.

Account	Account Title	Cost Pool Categorisation
1.1.11	Network equipment	
1.1.111	Switching equipment	
1.1.1111	Remote subscriber units	Primary plant
1.1.1112	Local digital switches	Primary plant
1.1.1113	Trunk digital switches	Primary plant
1.1.1114	International digital switches	Primary plant
1.1.1115	Intelligent network equipment	Primary plant
1.1.1116	Analogue switches	Primary plant
1.1.1117	Special service switching equipment	Primary plant
1.1.112	Access equipment	
1.1.1121	Wireless local loop equipment	Primary plant
1.1.1122	ISDN network termination units	Primary plant
1.1.1123	Broadband access equipment	Primary plant
1.1.1124	Pair gain equipment	Primary plant
1.1.1125	Network termination equipment	Primary plant
1.1.1126	Other access equipment	Primary plant
1.1.113	Data and leased lines equipment	
1.1.1131	IP equipment	Primary plant
1.1.1132	ATM equipment	Primary plant
1.1.1133	Frame relay equipment	Primary plant
1.1.1134	X25 equipment	Primary plant
1.1.1135	Leased lines equipment	Primary plant
1.1.114	Transmission infrastructure	
1.1.1141	Metallic cable	Primary plant
1.1.1142	Fibre cable	Primary plant
1.1.1143	Submarine cable	Primary plant
1.1.1144	Poles	Primary plant
1.1.1145	Masts and towers	Primary plant
1.1.1146	Duct and trenches	Primary plant
1.1.1147	Cabinets	Primary plant
1.1.115	Transmission equipment	
1.1.1151	Optical PDH equipment	Primary plant
1.1.1152	Optical SDH equipment	Primary plant
1.1.1153	Optical DWDM equipment	Primary plant
1.1.1154	PDH equipment – radio/microwave	Primary plant
1.1.1155	SDH equipment – radio/microwave	Primary plant
1.1.1156	xDSL transmission equipment	Primary plant
1.1.1157	Analogue transmission equipment	Primary plant
1.1.1158	Satellite systems	Primary plant
1.1.1159	Submarine transmission systems	Primary plant

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Account	Account Title	Cost Pool Categorisation
1.1.1160	Transmission distribution frames	Primary plant
1.1.1161	Other transmission equipment	Primary plant
1.1.117	Other plant	
1.1.1171	Public payphone equipment	Primary plant
1.1.1172	Telex equipment	Primary plant
1.1.1174	Directory enquiry services equipment	Primary plant
1.1.1175	Directory assistance systems	Primary plant
1.1.1176	Network management systems – switching	Support plant
1.1.1177	Network management systems – transmission	Support plant
1.1.1178	Network management systems – data	Support plant
1.1.1179	Network management systems – infrastructure	Support plant
1.1.1180	Network management systems – other	Support plant
1.1.119	Support plant	
1.1.1191	Test equipment	Support plant
1.1.1192	Power equipment	Support plant
1.1.1193	Air conditioning equipment	Support plant
1.1.1194	Other support plant and equipment	Support plant
1.1.12	Land and buildings	
1.1.1201	Land	Support plant
1.1.1202	Buildings – general purpose	Support plant
1.1.1203	Buildings – special purpose	Support plant
1.1.13	Non-network plant and equipment	
1.1.131	Furniture and office equipment	
1.1.1311	Furniture and office equipment	Support plant
1.1.132	Information technology	
1.1.1321	General purpose PCs and peripherals	Support plant
1.1.1322	Hardware	Support plant
1.1.1323	Software – general	Support plant
1.1.1324	Software – billing systems	Support plant
1.1.1325	Software – finance and other systems	Support plant
1.1.133	Vehicles	
1.1.1331	General purpose vehicles	Support plant
1.1.1332	Special purpose vehicles	Support plant
1.1.134	Customer premises equipment	
1.1.1341	PBX equipment	Primary plant
1.1.1342	Private payphones	Primary plant
1.1.1343	Dedicated customer premises private circuit equipment	Primary plant
1.1.1344	Other CPE	Primary plant
1.1.135	Other	
1.1.1351	Other non-network plant and equipment	Support plant

Appendices

Income Statement

INCOME STATEMENT		
7	Direct costs	
7.1	Discounts and incentives	
7.1.1000	Volume discounts	Direct costs
7.1.2000	Other incentives	Direct costs
7.2	Interconnection/wholesale costs	
7.2.1000	Payments to overseas administrators	Direct costs
7.2.2000	Payments to Mobile Operators	Direct costs
7.2.3000	Payments to PSTS Licensees	Direct costs
7.3	Other direct costs	
7.3.1000	Calling cards	Direct costs
7.3.2000	Other direct costs	Direct costs
8	Operating costs	
8.1	Operating costs	
8.1.1	Product and customer management	
8.1.1100	Product development costs	Primary activity
8.1.1200	Product management costs	Primary activity
8.1.1300	Sales and marketing costs	Primary activity
8.1.1400	Advertising costs	Primary activity
8.1.1450	Sponsorship costs	Primary activity
8.1.1500	Retail billing function costs	Primary activity
8.1.1600	Interconnect billing function costs	Primary activity
8.1.1700	Carrier service function costs	Primary activity
8.1.1800	Customer management costs	Primary activity
8.1.1900	Bad debts expense	Primary activity
8.1.2	Network management	
8.1.2100	Network design and planning costs	Primary activity
8.1.2200	Network management costs	Primary activity
8.1.3	Network maintenance	
8.1.3100	Switching equipment maintenance	Primary activity
8.1.3200	Access equipment maintenance	Primary activity
8.1.3300	Data and leased lines equipment maintenance	Primary activity
8.1.3400	Transmission infrastructure maintenance	Primary activity
8.1.3500	Transmission equipment maintenance	Primary activity
8.1.3600	Customer premises equipment maintenance	Primary activity
8.1.3700	Other plant maintenance	Primary activity
8.1.3800	Support plant maintenance	Support activity
8.1.4	Other maintenance	
8.1.4100	Land and buildings maintenance	Support activity
8.1.4200	Information technology equipment maintenance	Support activity
8.1.4300	Motor vehicle maintenance	Support activity
8.1.4400	Other non-network equipment maintenance	Support activity
8.1.5	Other operating costs	
8.1.5100	Licence fees	Primary activity
8.1.5200	Warehouse management costs	Support activity
8.1.5300	Transport management costs	Support activity
8.1.5400	Research and development costs	Support activity

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8.1.5510	Accommodation costs – general purpose	Support activity
8.1.5520	Accommodation costs – special purpose	Support activity
8.1.5600	Electricity and power costs	Support activity
8.1.5700	Foreign exchange gains and losses	Support activity
8.1.5800	Gain/loss on asset disposal	Support activity
8.1.5910	Property taxes	Support activity
8.1.5920	Other taxes	Support activity
8.2	Business support costs	
8.2.1000	Human resource function costs	
8.2.2000	Finance function costs	Support activity
8.2.3000	Procurement costs	Support activity
8.2.4000	Regulatory function costs	Support activity
8.2.5000	Legal function costs	Support activity
8.2.6000	Information systems function costs	Support activity
8.2.7000	Executive and planning function costs	Support activity
8.3	Depreciation, lease and rentals	
	As for relevant property, plant and equipment categories	
9	Non operating items	
9.1	Income from investments	
9.1.1000	Interest received	Support activity
9.1.2000	Other income from investments	Support activity
9.2	Finance charges	
9.2.2000	Other interest payable	Support activity
9.2.3000	Other financial charges	Support activity

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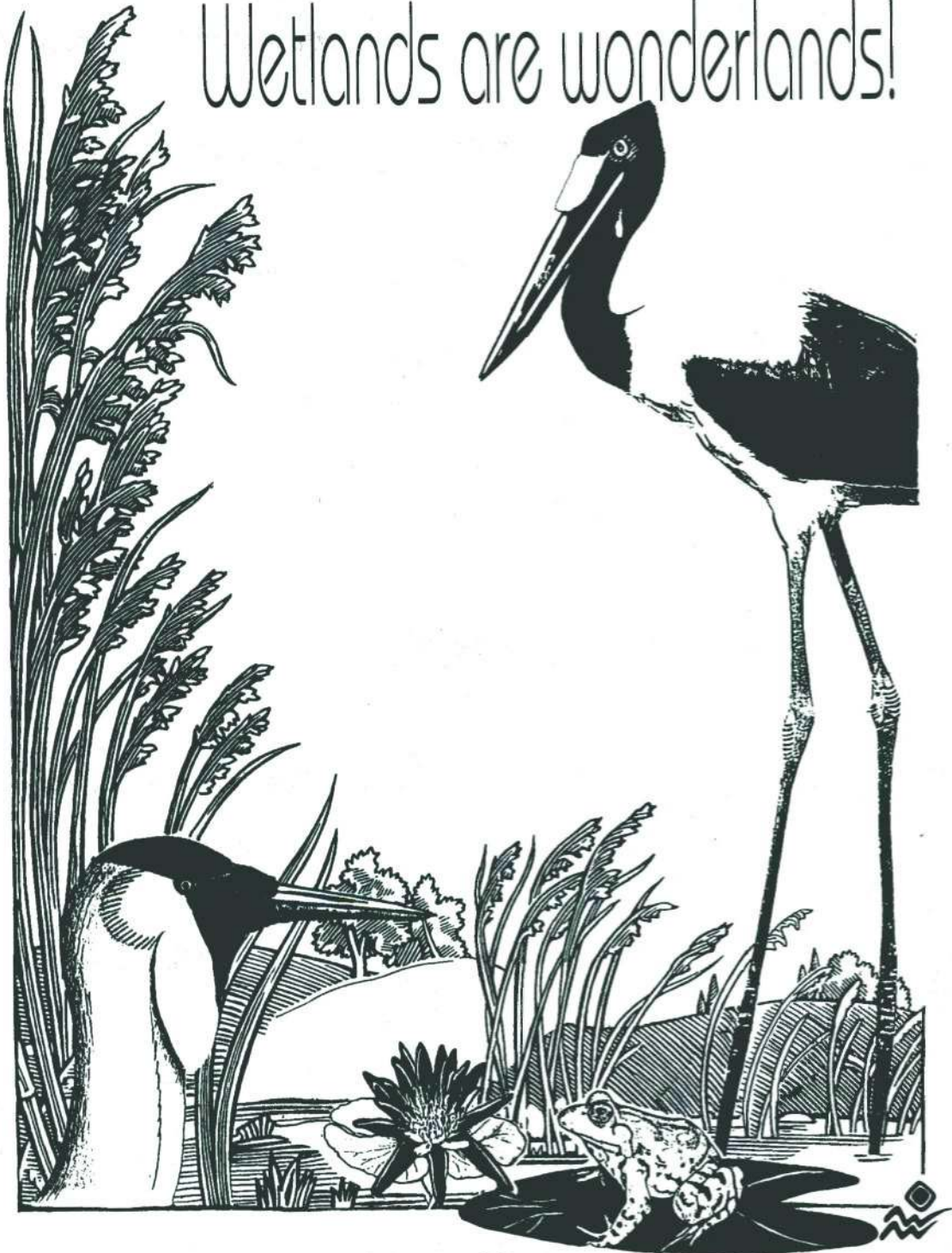
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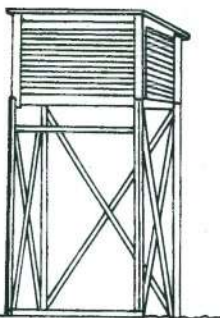
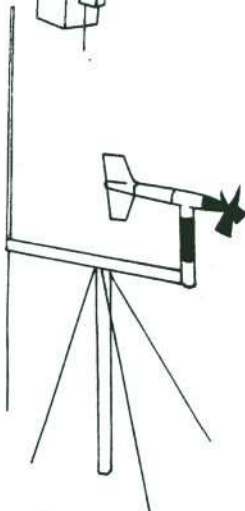
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