A Consultative Document

Proposed Accounting Separation Guidelines for the Telecommunications Sector

December 6, 2006 TATT 2/3/14

Maintenance History		
Date	**Change Details**	**Version**
December 6, 2006	First Draft	0.1

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1. Introduction

1.1. Objectives of Accounting Separation

The objective of accounting separation is to provide separate financial statements for each business entity as if it were a stand-alone business. Separating the segments will provide the opportunity for the Authority to judge whether there is a cross-subsidy flowing between the services provided by a concessionaire.

Accounting separation requires the preparation of separate accounts for each of the different businesses run by the same company, by identifying and allocating the costs and revenues associated with each business as well as the dealings between them.

The Authority is aware that a number of telecommunications regulators require that business operations be divided into separate retail and wholesale business, so that charges between the two segments may be explicitly observed. The Authority may consider structural separation in the future, if it is determined that this is required to ensure fair competition. Structural separation is not required at this time however concessionaires are required to keep separate accounts as defined by the Authority.

The Authority is equally aware that some regulators are looking at alternative models of operational separation, in which the access network is separated from the core network so that equivalent access services can be offered to all competing network and service providers. This model may become important in the future as well, particularly with the moves towards next generation IP networks and the convergence of services (e.g. between fixed and mobile, and between telecoms and broadcasting). For these reasons the Authority may consider operational separation in the future, but it is not a requirement at this time.

1.2. Requirements for Accounting Separation

Section 24 of the Telecommunications Act 2001, the “Act” states that “…a concession for a public telecommunications network or a public telecommunications service shall require the concessionaire to adhere, where applicable, to conditions requiring the concessionaire to…

(h) account for cost and keep books of accounts and where the Authority prescribes by regulation the manner in which books are to be kept, to keep such books of accounts in accordance with such regulations".

In adhering to the Act, section A32 of the concession document stipulates that when directed in writing, the concessionaire shall implement such accounting practices as may from time to time be required by the Authority in accordance with Regulations made under the Act. This statement gives the Authority the option of prescribing, if necessary, regulations for the maintenance of the books of accounts of concessionaires.

The purpose of these draft guidelines for accounting separation is to require concessionaires, where necessary, to provide separate books of accounts for all telecom services offered. The Authority has defined the relevant markets to which these services will be classified in the *Proposed Price Regulation Framework for Telecommunications Services in Trinidad and Tobago*, and will use these markets to guide the process of the separation of accounts.

1.3. Review Cycle

As the telecommunications sector grows and develops into more efficient and competitive markets with new and innovative telecom services the need will arise for the Authority to revise and update the guidelines to be used for accounting separation. And as such, this document will be modified in consultation with concessionaires, stakeholders, interested parties and the public, as the Authority deems appropriate. The maintenance history will be modified accordingly.

1.4. Consultation Process

The Authority is seeking the views and opinions of the general public and other stakeholders regarding the proposals made in this document in accordance with the Authority's *Procedure for Consultation in the Telecommunications Sector of Trinidad and Tobago.*

The Authority's consultation procedures and comment submission form are available on the Authority's website, http://www.tatt.org.tt. Comments should be submitted on or before **Wednesday 10th January 2007** to policy@tatt.org.tt or mailed to:

Telecommunications Authority of Trinidad and Tobago
BEN Court, 76 Boundary Road
San Juan

2. The Principles of Accounting Separation

The Authority will be guided by the following principles when implementing accounting separation:

- separated accounts must be prepared annually and must be based on a transparent cost allocation method
- the transparent cost allocation method must be based on the principle of cost causality. This requires that costs must be attributed to components, services and businesses strictly in accordance with the activities that cause those costs to be incurred.
- allocations under this methodology must specifically not be intended to, or have the effect of bringing, advantage the concessionaire at the expense of its competitors.
- separated accounts must be prepared in accordance with generally accepted accounting conventions, unless such conventions are shown to be irrelevant
- the allocation methodology must be applied consistently between accounting periods or, where a change in the method of application can be objectively justified, it must be noted and comparative data provided according to the revised basis of allocation
- the separated accounts must be subject to audit, and to standards required by the laws of Trinidad & Tobago.

2.1. Cost causation

Revenues and costs should be allocated to the different segments of the concessionaire's business (e.g. mobile, fixed networks) on the basis of causation. Costs and revenues should be allocated to those services or products that cause the revenue or cost to arise. In principle, each cost or revenue item should be reviewed, and the driver, or the activity that caused the cost to be incurred or the revenue to be earned, should be identified. The cost or revenue item should then be attributed to the service or product in which the activity is undertaken. It is the Authority firm belief that *ex ante* costs being incurred, concessionaires could determine the service/business area that would cause same.

Asset and liability accounts must also be allocated between services to allow for the calculation of rates of return on shareholders' equity for each service. These rates of return will permit an assessment of whether there is a cross-subsidy between different services provided by the concessionaire.

Cost causation will involve judgements on some matters, so it is important that the basis for these attribution methods be easily applied and transparent. In some cases causality can only be ascertained by examining historical data through a special study, using statistical analysis. In the event that costs cannot be assigned to a specific service category they should be included as a common cost.

2.2. Cost basis

The Authority prescribes that for the purpose of Accounting Separation, concessionaires employ the Historical Cost Accounting (HCA) approach. The cost basis, as well as other accounting principles used in preparing the separated financial results for the different segments of its business, must be consistent and in conformity with Generally Accepted Accounting Practice(GAAP). These are the same principles used by the concessionaires in preparing its audited financial statements.

2.3. Allocation methods

Allocation of costs, revenues, assets and liabilities must be on a clear, rational, and easily understandable basis. The methods of allocation and determination should be consistent over time. If changes in allocation are necessary (e.g. as a result of technology change, such as the current moves to Next Generation Networks), they should be identified to the Authority for approval. As well, costs and assets should be accumulated into groups or pools for allocation. These pools should be material in terms of financial magnitude.

To the extent possible, allocations should be made to the service generating the cost or generating the revenue. As well, the Authority believes it appropriate that where possible the allocations be based on resource usage, which drives costs and revenues. Allocations may be supported by special studies, historical data, or other methods. These data, if supporting the allocation, may include non-financial information that should separately be disclosed to the Authority.

2.4. Common costs

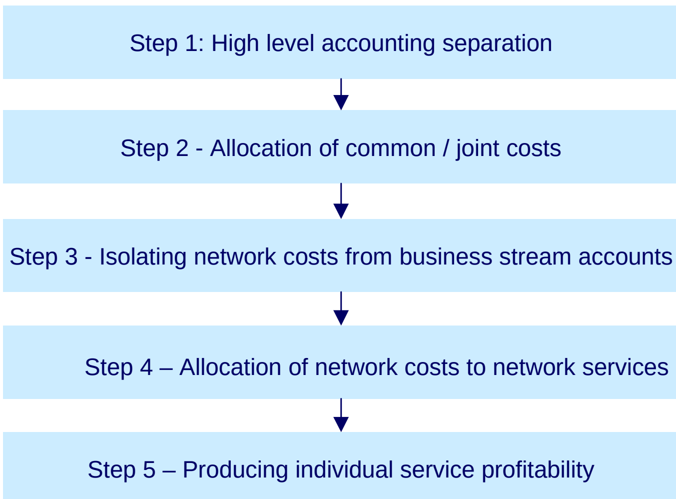
Common costs are by definition, shared costs that can not be causally linked to individual services, either directly or indirectly. In general, the percentage of common to total costs should be a small amount.

In the separated results, common costs must first be individually identified then allocated to each service/business in accordance with established criteria. The allocation of common costs must be identified at first in total and then as a percentage across each business in a transparent and non-discriminatory manner.

3. The Approach to Accounting Separation

Figure 1 presents a 5-step approach to the development of a cost and revenue model.

Figure 1: Approach



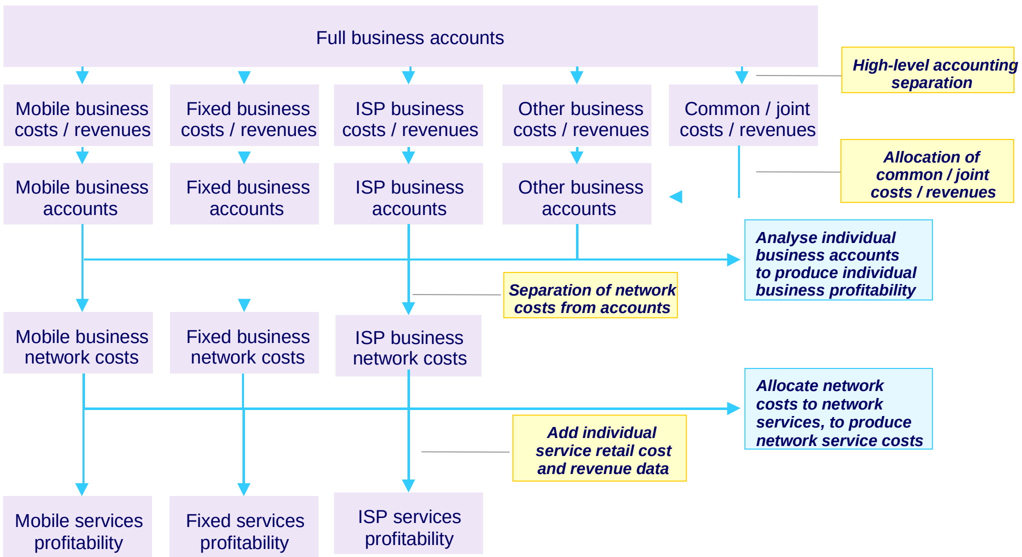
Each step is described in more detail in the following sections.

3.1. Step 1 – High-level accounting separation

When an accounting separation requirement is placed by the Authority on a concessionaire, the accounts should be separated over a static ‘chosen period’. Typically, the first period used will be the last accounting year where audited accounts are available.

Figure 2 illustrates an example of accounting separation that a business with fixed, mobile and ISP business streams would follow in the event of an accounting separation requirement.

Figure 2: Overall process summary



Each item of cost and revenue must be allocated to the relevant business market. In the case of revenue, it is anticipated that most, if not all, revenues can be allocated directly to the business entity to which they are related. This is not the case for costs, however, because a relatively high proportion of the costs of the business are shared between the individual business entities. It is for this reason that two additional categories are required to capture remaining costs and revenues, these are:

- **Other business costs / revenues -** to accommodate additional business functions, such as a CPE business
- **Common / Joint costs / revenues -** to reflect the reality that there will be accounting items which are shared between a subset of the business streams (these are 'joint') or between all of the business streams (these are 'common'). In order to provide meaningful Profit and Loss statements for each business stream, it is necessary to allocate joint and common costs to the individual business streams, so that all costs are fully allocated to a business stream; this allocation step is described in Step 2 below.

As a rule, the following must be allocated to each identified business stream:

- Capital expenditure (Capex) costs, for both network and retail assets

- Operational expenditure (Opex) costs, for both network and retail activities
- All revenues related to the business stream.

3.2. Step 2 – Allocation of common / joint costs

The Authority requires that, as far as possible, all costs shall be allocated directly to each business market. Where joint and common costs are genuinely shared between some or all of the business streams or which cannot obviously be separated between groups of business streams, the allocation principle should ideally reflect the way in which costs are incurred. Possible examples of how joint or common costs could be distributed are shown in Figure 3.

Figure 3: Possible allocation principles for joint and common costs

Cost name	***Cost type***	***Business streams sharing cost***	***Possible allocation principle***
Transmission network leasing costs	Opex / Capex	Fixed business Mobile business	Ratio of fixed : mobile minutes carried
Network maintenance costs	Opex	Fixed business Mobile business ISP business	Number of maintenance staff man-hours spent on each business stream
Head office overall business costs e.g.: - Finance - Administration	Opex	Fixed business Mobile business ISP business Other business	Equi-Proportionate Mark-Ups (EPMU) to costs already incurred in each business stream

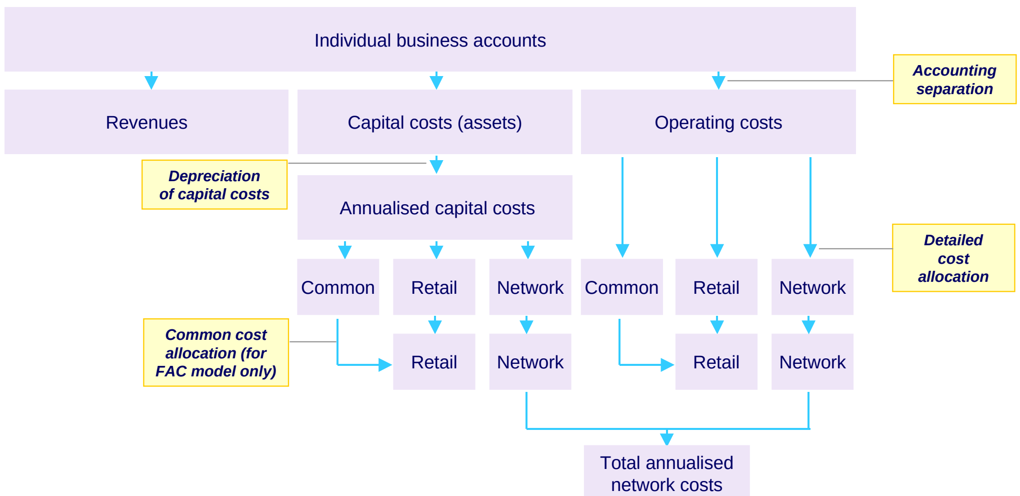
To support the cost allocation process a number of indicators will be used to best allocate costs to business streams, for example:

- the practices recommended by the European Commission in its guidelines on accounting separation; and
- a number of other national regulatory and policy documents which cover these issues.

3.3. Step 3 - Isolating network costs from business stream accounts

In this step the cost data in each of the identified business entities will be analyzed to produce network cost data. Figure 4 shows an approach for isolating network costs.

Figure 4: Isolating network costs from business stream accounts



The process follows these key stages:

1. **Accounting separation –** the business stream accounts will have been grouped into revenues, capital costs and operating costs categories, as outlined in Step 1 above.
2. **Depreciation of capital costs –** capital costs will be depreciated using standard historical cost accounting principles (such as straight line depreciation).
3. **Detailed cost allocation –** all opex and annualized capex costs will be allocated to either appropriate network cost categories, a retail cost pool, or otherwise a retail / network common cost pool.

Figure 5 illustrates the network elements that are likely to be included in accounting separation exercises for fixed and mobile business entities (other systems may also be required, e.g. for value added services). It should be noted that with the moves to next generation networks (NGNs) some of these elements are gradually being replaced (for example, multi-service access nodes replacing remote switching units; media gateways replacing digital local exchanges and soft-switches replacing tandem exchanges) while the transmission network is gradually transitioning from circuit-switching to IP-based technology.

Figure 5: Network elements

Fixed network elements	Mobile network elements
· Main Distribution Frame (MDF)	· Base Station (BTS)
· Remote Switching Unit (RSU)	· Base Station Controller (BSC)
· Digital Local Exchange (DLE)	· Mobile Switching Centre (MSC)
· Digital Tandem Exchange (DTE)	· PDH transmission links
· International Switch Centre (ISC)	· SDH transmission links
· Voice over Internet Protocol switch (IPS)	· Inter-MSC Transmission (IMT)
· Interconnect Gateway (IGW)	· Pre-paid service platform (PRP)
· Network Management System (NMS)	· General Packet Radio platform (GPR)
· Interconnect Billing (IBIL)	· Short Message Service Centre (SMSC)
· Intelligent Network platform (IN)	· Voice Mail System (VMS)
· RSU transmission ring	· Billing system (BIL)
· Local transmission ring	· Home Location Register (HLR)
· Provincial transmission ring	· Customer Management System (CMS)
· National transmission ring	· Network Management System (NMS)
· Transmission link between gateways (T-GW-GW)	· Interconnect Gateway (IGW)
· Transmission link DC1 to ISC.	· International Gateway (INT).

4. **Common cost allocation –** as implied above, there will be a number of opex and annualized capex costs which do not fall into either a network element category or the retail cost pool, and which must therefore be somehow allocated:

Statement on the Methodology for Allocation of Common Cost

The Authority proposes that in an FAC methodology that these common costs should be allocated to either the network or the retail cost categories.

3.4. Step 4 – Allocation of network costs to network services

Step 3 leads to a detailed categorization of annualized network costs (combining capex and opex) into network element cost categories. In order to produce annual costs for network **services** routing factor tables are employed.

- Routing factor tables are a method of allocating an appropriate portion of the total cost of a network element to each of the network services which use that element.

3.5. Step 5 – Producing individual service profitability

Step 4 describes how network costs can be isolated for each individual service. Assuming the concessionaire can supply its retail cost and revenue data for each individual service. The individual service profit is then simply:

- Individual service revenue, **less**
- Individual service network cost, **less**
- Individual service retail cost.

Individual service profitability in terms of the profit (EBIT) and return on capital employed can be calculated. A sample output is shown in Figure 6.

Figure 6: Sample output of individual service profitability

	Mobile					Fixed					Internet	
	Call termination	Call origination	SMS	Data	etc	Call termination	Call origination	PSTN line	Leased lines	etc	ADSL	Dial-up
Revenues	**x**		**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**
Opex	x		x	x	x	x	x	x	x	x	x	x
EBITDA	**x**		**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**
Depreciation	x		x	x	x	x	x	x	x	x	x	x
EBIT	**x**		**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**
Mean capital employed	x		x	x	x	x	x	x	x	x	x	x
Return on capital	**x**		**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**

4. Achieving Accounting Separation in Practice

The Authority will consult with the industry in developing the format for regulated accounts. In particular, the Authority proposes to develop a standardized chart of accounts, a standard set of asset lifetimes and a template for the submission of traffic data for the services under review. These detailed accounting formats for each of these areas would be published for industry comments within the next six (6) months.

Statement on the Principles of Accounting Separation

The Authority proposes that the following principles should apply to accounting separation:

- *separated accounts must be prepared annually and must be based on a transparent cost allocation method*
- *the transparent cost allocation method must be based on the principle of cost causality. This requires that costs must be attributed to components, services and businesses strictly in accordance with the activities that cause those costs to be incurred.*
- *allocations under this methodology must specifically not be intended to, or have the effect of bringing, advantage the concessionaire at the expense of its competitors.*
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- *the separated accounts must be subject to audit, and to standards required by the laws of Trinidad & Tobago.*