

# Gibtelecom

**SMP REGULATED ACCOUNTS**

**FOR YEAR ENDED 31 DECEMBER 2016**

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**ATTRIBUTION METHODOLOGIES**

*(Submitted 29 March 2019)*

**Gibtelecom Limited  
15/21 John Mackintosh Square  
Gibraltar**

## Gibtelecom SMP Regulated Accounts

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## 1. Attribution Methods

### 1.1. Introduction

1.1.1 This document describes the attribution methodologies used to allocate fully Gibtelecom's revenue, costs, assets and liabilities to its activities and, where applicable, their disaggregated activities and gives an explanation of the different methods used for attributing revenue, costs and capital employed. In accordance with the GRA's Decision Notice C05/16 on Accounting Separation, Cost Accounting Systems, Cost Orientation and Retail Price Notification, Gibtelecom is required to provide details on the Company's regulated separated accounts attribution methodologies in a separate document. Attribution methodologies were previously provided with the Company's separated accounts and other accompanying information within a single consolidated document.

1.1.2 Cost types and the processes involved in their allocation or apportionment are described, showing how costs are treated from their initial appearance in Gibtelecom's accounting records to their ultimate attribution to activities. It explains both the system used to produce the SMP Regulated Accounts and the methodologies employed in that system.

1.1.3 The purpose of Accounting Separation is to provide information to reflect as closely as possible the performance of different activities within the business. It is necessary for competing operators to have confidence that Gibtelecom is not unduly discriminating between its own Retail Activities and competing operators or between one competitor and another when providing similar services.

1.1.4 The aim of Accounting Separation is to assist in ensuring that charges are cost-based, transparent and non-discriminatory. This in turn promotes a competitive environment in a number of ways, including:

1.1.4.1 the publication of accounts that are transparent and allows other operators to understand how Gibtelecom's revenues relate to costs.

1.1.4.2 the SMP Regulated Accounts data demonstrates that interconnection arrangements are equitable, in that it shows no over or under recovery of Gibtelecom's network costs.

1.1.5 The fundamental feature of this approach to attribution is the principle of causality. Each item of income, cost and capital employed recorded in the Gibtelecom group accounts is attributed to the activities defined under Accounting Separation.

1.1.6 Attribution methodologies will be regularly reviewed and enhancements introduced to reflect, for example, changing technologies while the apportionment bases, which are the practical application of these methods to actual values, will be updated periodically.

### 1.2. Activities

1.2.1 Under accounting separation, financial statements are produced that show Gibtelecom's revenue, costs and capital employed attributed between the following activities:

#### 1.2.1.1 Wholesale Core Network Business

The wholesale core network activity sells a range of network services to meet the differing needs both of other operators and the retail activity.

#### 1.2.1.2 Wholesale Access Network Business

The wholesale access network activity provides the Retail activity with links between Gibtelecom's customers and the wholesale core network. The wholesale access network activity receives revenue

from Gibtelecom's retail activities in the form of a transfer charge equal to its costs plus a return on capital employed.

### **1.2.1.3 Wholesale mobile voice termination business**

The wholesale costs incurred in delivering Mobile Voice services.

### **1.2.1.4 Retail business**

Gibtelecom produces separated financial statements for the following retail activities:

Fixed access  
Fixed domestic calling  
Fixed international calling

All of Gibtelecom's other retail activities are included under remaining activities.

## **1.3. Attribution Methodologies**

### **1.3.1. Overview**

1.3.1.1 Gibtelecom's approach to attribution is to identify income and costs which can be directly attributed to activities. For all remaining balances Gibtelecom identifies the appropriate driver for each item, and, as far as possible, uses objective operational and/or financial data relevant to that driver to generate apportionment bases.

This approach to the process of attribution of financial information to activities can be summarised as follows:

1. review each balance,
2. establish the cost driver, i.e. the process that caused the cost to be incurred or the revenue to be earned,
3. use the driver to allocate or apportion the balance to Retail Activities, the Wholesale Access Network Business or, to the Wholesale Core Network,
4. allocate revenue to Retail Activities, Wholesale Access Network or to the Wholesale Core Network Business.

The general methods for revenue and cost attribution in Accounting Separation are set out below.

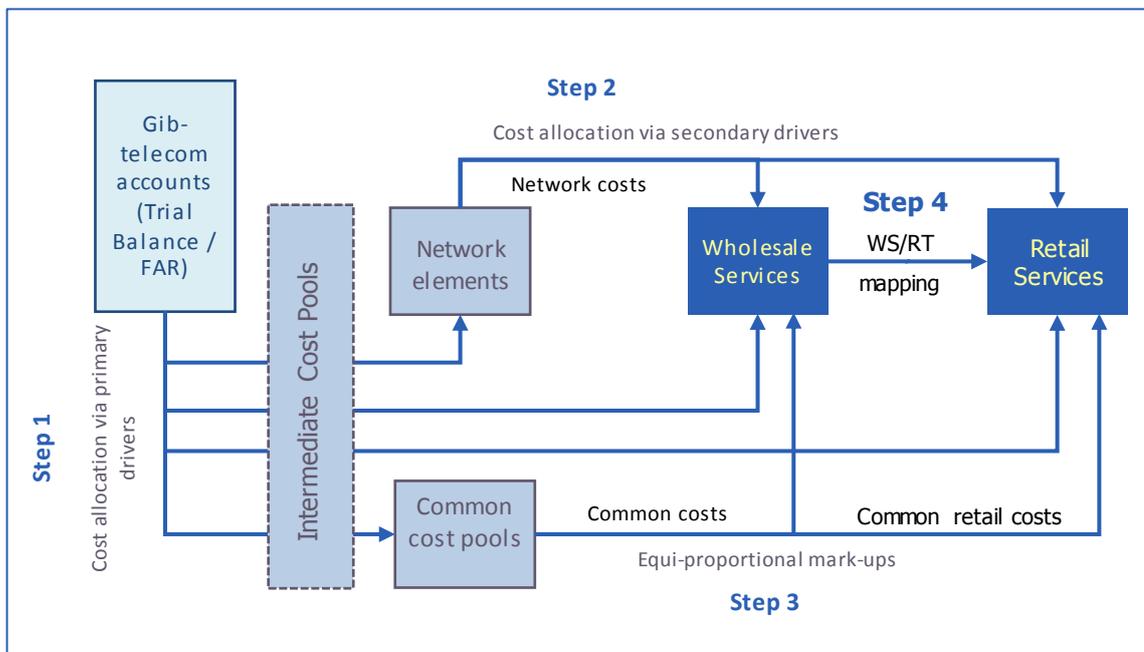
The attribution of mean capital employed, which follows the same principles, is also described briefly below.

### **1.3.2. Revenue**

1.3.2.1 Revenue is recorded in the accounting records in such a manner that it is usually possible to allocate it directly to retail and wholesale activities.

## 1.3.3. Costs

1.3.3.1 Costs are drawn from the accounting records. There are a series of steps which allocate non-business costs in a tiered approach to eventually allocate these costs to business areas. These are highlighted in Decision Notice C05/16 on Accounting Separation, Cost Accounting Systems, Cost Orientation and Retail Price Notification. To identify the costs of specific services the ASR model utilises a number of allocation stages or building blocks as illustrated in the following diagram:



The methodologies applied to the costs, which vary according to the nature of the costs and the way in which they are recorded, are set out below.

**a) Direct and directly attributable costs**

Certain costs can be allocated to specific activities and, therefore, do not require apportionment. These costs include most of the costs directly related to customer-facing activities, such as maintenance of customer premises equipment. They also include directly appropriated and plant costs.

**b) Indirectly attributable costs**

Other costs cannot be directly associated with particular activities or network elements, and require indirect apportionment. These costs include general costs of Gibtelecom's business units which service various activities which are recorded on a cost centre basis.

**c) Unattributable Costs**

Unattributable costs are costs for which no specific apportionment bases can be readily derived. These are collected in common cost pools for general business overhead costs, common network costs (including regulatory costs), and common retail costs.

## 1.3.4. Mean Capital Employed

1.3.4.1 Mean capital employed is defined by Gibtelecom as mean total assets less liabilities and provisions other than those for deferred taxation, excluding corporate taxes and dividends payable. The mean is calculated from the start and end values for the period.

The apportionment of capital employed follows a similar approach to that used for operating costs.

Fixed assets are recorded using Asset type identification codes and can be segmented into three categories:

1. those assets that can be directly allocated to activities;
2. assets relating to a group of activities which are apportioned on the basis of cost driver;
3. assets of a general nature supporting, for example, general mainframe computers or motor vehicles, where an appropriate apportionment base, derived from the attribution of the operating costs of that element, is applied.

1.3.4.2 For current assets and liabilities, those elements that can be directly attributed to activities (specific debtors and creditors, stocks and provisions) are directly allocated; for the remainder appropriate apportionment bases are derived for each element. For instance, trade debtors are attributed on the basis of an analysis of the related revenue.

1.3.4.3 Cash balances are attributed to activities and network elements on the basis of an analysis of operating and capital expenditure in the period.

1.3.4.4 Provisions are either allocated specifically to activities or are apportioned using a base appropriate to the particular provision.

## 1.3.5. Non-Financial Data

1.3.5.1 Wherever costs cannot be directly allocated to activities, an apportionment is required.

1.3.5.2 Depending on the cost involved the appropriate basis of apportionment may be of a non-financial nature. In these instances the relevant data may be extracted from non-financial data sources, such as operational systems recording core transmission and usage, or may be collected through activity analysis.

1.3.5.3 These surveys are re-performed annually and in some instances more frequently.

## 1.3.6. Summary

1.3.6.1 Revenue, costs and capital employed are attributed, by allocation and apportionment, either directly to activities or via a series of steps of indirect allocation.

1.3.6.2 Gibtelecom's approach to attribution is to identify the appropriate cost drivers for each revenue, cost or capital employed type and, as far as possible, to use objective operational and/or financial data relevant to that cost driver to generate apportionment bases.

1.3.6.3 Apportionment bases and methodologies are regularly reviewed with enhancements introduced to reflect, for example, changing technologies.

## 1.4. Revenue

### 1.4.1. Overview

1.4.1.1 Revenue is made up of the value of services provided and equipment sales. Typically, revenue can be analysed by activity directly from the accounting records. The revenue arises from calls, line rentals and other activities.

### 1.4.2. Wholesale Core Network

1.4.2.1 Revenue arises from provision of network services to other operators and to the Retail Business. When there are receipts from other operators in respect of calls originating in their networks and terminating on, or in transit through, the Wholesale Core Network these are separately identified in the accounting records and directly allocated to the Business.

1.4.2.2 Separated accounts have been prepared for the following wholesale core network activities:

1. Fixed termination
2. Leased Lines
3. Remaining activities
4. Total core network

As shown in this list, Leased Lines are reported under the Wholesale Core Network. Leased line products are treated as end-to-end products, including access links, and all corresponding assets are included within the core network. Similarly, all international services and corresponding assets are included in Wholesale Core Network Remaining Activities.

1.4.2.3 The revenue arising from the provision of services to the retail activity is calculated within the transfer charge element of the accounting separation system, rather than in Gibtelecom's main accounting systems.

### 1.4.3. Wholesale Access Network

1.4.3.1 The revenue arising from the provision of services to the Retail Business is calculated within the Transfer Charge element of the Accounting Separation system, rather than in Gibtelecom's main accounting systems, on the basis of the recorded operating costs and return on capital employed of the Wholesale Access Network Business.

1.4.3.2 Separated accounts have been prepared for the following wholesale access network activities:

1. Unbundled access
2. Broadband access
3. Remaining activities
4. Total access network

In this list, "remaining activities" mainly consist of Customer Premises Equipment (CPE), including PBX systems. These PBX systems, which provide the largest contribution to "remaining activities", can be seen as an extension of the Gibtelecom network, which justifies their classification as a wholesale service.

## **1.4.4. Retail**

### 1.4.4.1 Fixed Access

Fixed Access revenue, which is separately identifiable from the accounting records, is in respect of rental income related to the provision of lines to retail customers.

### 1.4.4.2 Fixed Access domestic Calling

Revenue derived from local (domestic) calls originating at a Gibtelecom fixed access point.

### 1.4.4.3 Fixed Access International Calling

Revenue derived from international calls originating at a Gibtelecom fixed access point.

### 1.4.4.4 Total retail

## **1.4.5. Other activities**

1.4.5.1 Revenue from other activities include all the other retail services that Gibtelecom offers which do not form part of the financial separation regulatory requirements.

## **1.4.6. Wholesale mobile voice termination**

1.4.6.1 Mobile revenue arises from provision of mobile network services to other authorised operators and to the mobile business. When there are receipts from other operators in respect of calls originating in their networks and terminating on, or in transit through, the wholesale mobile network, these are separately identified in the accounting records and directly allocated to the business.

1.4.6.2 Separated accounts have been prepared for the following wholesale mobile network activities:

- Mobile voice termination services and
- Remaining activities

1.4.6.3 The revenue arising from the provision of services to the non-mobile retail activity is calculated within the outpayments and transfer charge element of the accounting separation system, rather than in Gibtelecom's main accounting systems.

## **1.5. Costs**

1.5.0.1 As mentioned above, costs are drawn from the accounting records and the attribution methods used depend on the nature of the costs involved.

1.5.0.2 In wholesale markets, "Cost of Sales" are considered an external cost related to specific services. As such, Cost of Sales include e.g. the rental of international transmission infrastructure, which is not used in national services (such as leased lines, call origination or call termination in Gibraltar). Therefore, Cost of Sales only appear in the reporting of "remaining markets" in wholesale markets.

### **1.5.1. Direct and directly attributable costs**

1.5.1.1 These costs are allocated direct to the activity involved based on the information provided by the accounting records.

## 1.5.2. Indirectly attributable costs

1.5.2.1 These costs are attributed on a cost-driver basis. The nature of the costs is examined to determine its cause and subsequently its driver.

1.5.2.2 This driver is then used to attribute the costs across those services which make use of the common cost-driver.

## 1.6. Types of cost

1.6.1 The separated accounts have been undertaken using the principle of cost causality (which is in line with regulatory requirements), whereby allocations try to follow the cause of the cost or utilise a driver which approximates the causality. Costs are considered to fall into five categories and the treatment for each type is as follows:

### a. Retail Costs

These are costs that are specific to retail such as advertising activities. Costs such as these have been allocated to the appropriate retail services.

### b. Fixed Network Costs

These are costs that are specific to the network such as maintenance of switching equipment or activities of the network operations centre. Costs such as these have been allocated to the appropriate network elements.

### c. Wholesale Network Costs

These are costs that are specific to the network such as maintenance of core / switching, interconnect and radio access equipment; billing, rating mediation and provisioning infrastructure or related activities of the network operations centre. Costs such as these were allocated to the appropriate network elements and subsequently further allocated as appropriate to the specific products / services that the network elements are used to provide. However, since detailed information regarding the usage of specific network elements to deliver specific wholesale products and services was not available, it has not been possible to define detailed routing factors for each wholesale product. Consequently, in the SMP regulated wholesale accounts, all non-product specific network costs have been grouped together and allocated to the individual wholesale products using the common volume usage conversion factor approach.

### d. Shared costs

These are costs which relate to the shared functions of the business such as the human resource area or building maintenance. These costs have been allocated across the cost centres that utilise the shared service using an appropriate driver.

### e. Common costs

These are costs which relate to the "overhead" type activities of the business such as corporate communications and audit fees. These costs have been allocated to retail services and/or network elements using equal proportional mark up (EPMU) on the appropriate direct costs (i.e. in proportion to the relative value of the direct costs).

**f. Non-Operating Costs/Income**

These are costs which do not relate to the operational activities of the business such as interest payments. These costs have not been allocated across services or network elements but identified separately for reconciliation purposes.

**1.7. Cost analysis**

1.7.1 To allocate the majority of costs it has been necessary to identify appropriate cost drivers. All of Gibtelecom costs are recorded under cost centres. However, there are certain specific costs, such as international outpayments and interconnection charges, which are either not specifically related to or are too large to follow the activities of the cost centre.

1.7.2 These costs have been extracted and separately allocated using an appropriate driver in line with the five cost categories identified above. The remaining costs within the costs centres have been allocated via an activity based costing (ABC) exercise, utilising the activities of the personnel within the cost centre.

**1.7.1. Allocation of staff costs**

1.7.1.1 Staff costs are apportioned using an activity based costing (ABC) methodology. This consists of a two-stage process comprising apportionment of costs to defined activity based costing activities and a mapping of these activities to activities and network elements as defined by accounting separation.

1.7.1.2 Where necessary, i.e. for most departments, each has then analysed its function into a number of specific activities that it performs. For instance, the Network Engineering department has identified activities which include developing and installing fixed national transmission network, provide network and external plant security, and undertake maintenance on access network. Each department performs an analysis of the time spent on the activities that it undertakes. Most of this work is analysed within Gibtelecom's activity dictionary, which is used to input and report the majority of activities undertaken within the company.

1.7.1.3 An exercise was undertaken to identify the activity breakdown within cost centres. The activity dictionary was used to ensure consistent activities across the business. Once appropriate activities had been selected by the cost centre head, the staff members recorded under the cost centre has been mapped to the relevant activity.

1.7.1.4 The resulting activity allocators were applied to the core costs of the cost centre resulting in a cost by activity. Each of these activity costs was then allocated across retail services, network elements or to common costs using the appropriate driver.

1.7.1.5 Facility costs (rent, electricity etc) are separately identified within the cost centre structure with a separate cost centre for each building. Each facility cost centre has been allocated using the floorspace usage of the building.

**1.7.2. Allocation of specific costs**

1.7.2.1 Some cost expense categories, due to their size or non-compatibility with the core activities of the cost centre, were separately identified and extracted from the trial balance to be allocated individually. These costs have been allocated using an appropriate driver to retail services, network elements or common costs.

### 1.7.3. Allocation of shared activities and costs

1.7.3.1 With shared activities and costs the issue of cross support between departments and the problems of drivers which cross allocate has to be addressed. For example, the MIS department provides services to the Human Resources department and the Human Resources department provides services to the MIS department. This circular logic is solved numerically within the ASR model.

### 1.7.4. Allocation of common costs

1.7.4.1 The model contains three common cost pools where costs specific to retail (but not any specific service), specific to networks (but not to any specific element) or corporate common costs (not specific to retail or networks) have been identified.

1.7.4.2 Using the EPMU methodology each common cost pool is allocated across the appropriate retail services and/or network element using the proportion of sub totalled costs identified from the previous allocation stages. The EPMU allocation has been applied once all other costs have been allocated.

### 1.7.5. Network modelling and routing factors

1.7.5.1 The network is the main production facility for services provided by Gibtelecom. To perform a clear accounting separation, all network costs are associated with wholesale services to calculate cost-oriented prices for each of these services.

1.7.5.2 In a separate stage, retail service cost can be derived by mapping them to the appropriate wholesale service or services (many retail services are combinations of a set of wholesale services).

1.7.5.3 The main inputs of the network modelling are the fixed assets register, the list of network elements, the service volumes and the network routing factors (see section 3 below).

1.7.5.4 Network routing factors describe if and how often each network element is used by each wholesale service to allow for accurate cost allocation based on cost causation.

1.7.5.5 Service Volumes are the main driver to determine the cost on a per service basis after all costs have been appropriately (re-)allocated to each network element.

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1.7.5.7 Network routing factors based on the common volume usage conversion factor approach determines the proportion of the overall wholesale network costs are used by each wholesale service to allow for accurate cost allocation based on cost causation.

1.7.5.8 Service volumes are the main driver to determine the cost on a per service basis after all costs have been appropriately re-allocated to common network elements including core, switching, radio access, interconnect, billing/ rating etc.

1.7.5.9 Many network elements are shared by different services; e.g. leased lines and voice calls both make use of core network transmission lines. In order to appropriately attribute network element costs to these services, a common unit of service must be used. All voice services are therefore converted from annual minutes to busy hour Mbps. This conversion uses the following engineering parameters:

Busy hour traffic as % of full year traffic	0.025%
Network Utilisation Level	80%
Erlangs per circuit	0.6
Channels per E1	30

The voice traffic in Mbps is then calculated as:

$$\text{Voice minutes} * 1/60\text{sec/min} * \text{BH\%} / \text{Nw Util.} / \text{Erlang per circuit} / \text{Ch per E1} * 2 \text{ Mbps}$$

Using the above parameters results in a conversion factor of 5.78704E-07

## 1.7.6. Common usage and common volume

1.7.6.1 Common volume is the measurement of volumes of each mobile product type using a common unit of measurement, the erlang. This measure is used as the driver to apportion costs that aren't dependent upon the amount of usage that the calls make of the Gibtelecom mobile network. (e.g. billing). To allow costs to be correctly allocated where they are dependent upon the use of the Gibtelecom mobile network to convey the 'call' to and from each mobile product type, a 'Common Usage' driver has been used.

1.7.6.2 Within the model, every type of call involving a Gibtelecom mobile subscriber or a non-Gibtelecom mobile that uses the Gibtelecom mobile network (e.g. foreign roamers) has been considered. For each mobile product type (e.g. pre-paid Gibtelecom mobile in Gibraltar, local roamers, foreign roamers), a percentage of the use that origination and termination legs of the calls make of the Gibtelecom mobile network is calculated.

1.7.6.3 Each mobile product's 'Common Volume' is multiplied by its percentage use of the Gibtelecom mobile network to calculate the 'Common Usage'. For example, the Gibtelecom mobile network is wholly used for providing the originating and termination legs of the call to and from a Gibtelecom mobile used in Gibraltar but not at all if the same Gibtelecom mobile is used outside of Gibraltar, a local roamer. This measure is used to apportion costs that are dependent upon the use made of the Gibtelecom mobile network (e.g. Gibtelecom mobile network maintenance).

Table 1 below shows more details on the general methods of allocating costs.

**Table 1 Methods of Allocating Costs**

Category of Operating cost	Method of Allocation	Principal Activities
Depreciation	The allocation of depreciation has followed the allocation of the fixed assets to which it relates.	All
Bad debts	Gibtelecom bad debts have been allocated as a proportion of total income of billed areas.	All
Staff costs and related staff costs	The allocation of the staff and related costs is carried out using activity based costing methodologies	All

Facility costs	<p>Activities are allocated to Gibtelecom's different staff cost centres using an activity dictionary to ensure consistent activities across the business. Once appropriate activities had been selected by the cost centre head, the staff members recorded under the cost centre has been mapped to the relevant activity.</p> <p>The resulting activity allocators were applied to the costs of the cost centre resulting in a cost by activity. Each of these activity costs was then allocated across retail services, network elements or to common costs using the appropriate driver.</p> <p>Facility costs (rent, electricity etc) are separately identified within the cost centre structure with a separate cost centre for each building. Each facility cost centre has been allocated using the floorspace usage of the building.</p>	
Rental costs	On analysis of employee allocation to the different premises and then allocating the rental costs to the areas where these employees have allocated their time.	All
Stock related costs	On the basis of the split of the stock list between the areas of activities that were carried out by Gibtelecom. Using the percentage split of stock between the various areas we have been able to allocate costs such as the inventory reserve cost item.	All
Motor vehicle expenses	By dividing the total motor vehicle costs by the number of vehicles to arrive at an average cost per vehicle, and then using the allocation of motor vehicles to staff to allocate the motor vehicles to the different areas.	All
Personnel costs	Allocated based on the percentage of employees' time allocated to each area as a percentage of all employees' time (excluding those allocated initially to the personnel area).	All
Planning costs	Allocated based on turnover (excluding bank interest earned and workforce planning costs, which are allocated based on headcount) on the basis that the greater the income derived from an area, the larger the element of planning that will be dedicated to that area.	All
Administration costs	Allocated on the basis of turnover on the basis that greater turnover will result in an increase in administration expenses.	All
Billing costs	Allocated only to those areas that have a billing function on the basis of turnover.	All
Customer services costs	Allocated based on the percentage of employee's time allocated to each area as a percentage of all employees' time (part of activity based costing analysis).	All
Marketing costs	Allocated on the same basis as billing costs.	All

## 1.8. Mean Capital Employed

### 1.8.1. Overview

1.8.1.1 The apportionment of mean capital employed follows a similarly detailed and careful approach to that for operating costs. For some items turnover is the appropriate driver rather than costs.

### 1.8.2. Cost of Capital

1.8.2.1 In accordance with GRA Direction A03/12, the SMP Regulated Accounts have been prepared on the basis of a 12.45% Return on Capital Employed (ROCE) based on Weighted Average Cost of Capital and Capital Asset Pricing Methodologies. The components and formulae used in the calculation of this amount are set out under Section 3 of the Accounting Documents.

1.8.2.2 It should be noted that the economy of Gibraltar is somewhat disproportionate in size in comparison to other EU member States, where operators classified as having Significant Market Power (SMP) enjoy a considerably higher turnover than Gibtelecom. The cost orientation principles at the EU level apply to SMP operators with significantly greater strategic mass and revenues than Gibraltar. For example, the profits of Gibtelecom generally represent a fraction of less than 1 per cent of such operators. Therefore any process of benchmarking and comparison to other Member States needs to be conducted with care.

### **1.8.3. Tangible fixed assets**

1.8.3.1 Some network equipment assets can be allocated directly to activities or network elements on the basis of the asset class recorded in the general ledger, or apportioned to activities the basis of network studies. Network assets allocated to mobile have been further allocated to each mobile product on the basis of their common measure.

1.8.3.2 Motor vehicles, computers, land and buildings are apportioned across activities using bases which replicate the total apportionment to services of the costs of the operations supported by the assets concerned. Further allocation across the various mobile products has been undertaken by their usage measured by the common usage.

1.8.3.3 Where direct allocation is not possible each unit will apportion the relevant assets between activities using an appropriate cost driver specifically selected to reflect the operations concerned.

### **1.8.4. Stocks**

1.8.4.1 The bulk of stocks, if any, can be directly allocated to each relevant activity with the majority of the remainder being directly allocated to the wholesale access network activity.

### **1.8.5. Debtors**

1.8.5.1 Debtors are extracted from the accounting records and analysed by type. At this stage the appropriate apportionment bases (e.g. relevant turnover) are then applied. Debtors include the following categories:

- a) Trade debtors are directly allocated to activities and network elements on the basis of relevant apportionment bases.
- b) Accrued income is directly allocated to activities and network elements on the basis of relevant apportionment bases.
- c) Other debtors and prepayments are apportioned to activities using bases appropriate to the particular debtor type.

Debtor balances are also applied to wholesale services provided internally. These "internal debtors" are related for example to the pre-payment of network elements. Pre-payments, as any other capital employed on network elements are subsequently allocated to services based on their respective usage of network elements. No notional debtors are generated in this process.

## 1.8.6. Cash at bank and in hand

1.8.6.1 Cash balances are apportioned on the basis of operating and capital expenditure in the period.

1.8.6.2 In separated Accounting Reports, Cash is reported under “Debtors”.

## 1.8.7. Creditors

1.8.7.1 Creditors are extracted from the accounting records and the appropriate apportionment bases then applied in the following categories:

- a) Creditors over a material balance are allocated to activities on the basis of the specific credit.
- b) Creditors with an immaterial balance are allocated to the administration support function.
- c) Other creditors are apportioned to activities and network elements using bases appropriate to the particular creditor type.

The further allocation to mobile services is apportioned across the various mobile products using the appropriate driver; generally common usage representing use of the mobile network.

Table 2 below shows a summary of the general methods used to allocate capital employed.

**Table 2 Methods of allocating capital employed**

Category of assets and liabilities	Description	Method of Allocation	Principal Activities
Network Assets	Local switching and related equipment	Direct to wholesale core network.	Wholesale Core Network
	Ducting	Ducting has been allocated on the same basis as “cabling and conduits” .	Wholesale Core Network, Wholesale Access Network and others
	Cabling and Conduits	Direct to Wholesale Core Network, and/or Wholesale Access Network based on samples obtained from Engineering Department.	Wholesale Core Network, Wholesale Access Network and others
	Mobile switching and related equipment	Allocated on the basis of service usage.	Wholesale Mobile Network
	Microwave and backhaul costs	Allocated on the basis of service usage.	Wholesale Mobile Network
	Mobile sites & Radio equipment	Allocated on the basis of service usage.	Wholesale Mobile Network
Non-network fixed assets	Leasehold improvements	Allocated to activities on the basis of the time allocation by employees at each of the sites.	All
	General computers	Allocated on the basis of identifying the usage made by the different business areas of computers.	All
	Motor vehicles	Allocated to activities based on usage.	All
	Furniture and office equipment	Allocated to activities based on the allocation of time by the staff.	All

	Customer Premises Equipment	Direct to activity.	Remaining Activities
	Public Payphones and related equipment	Direct to activity.	Retail
Working capital	Short-term investments (including cash at bank and in hand)	Directly allocated to activities based on the operational requirements of each business.	All.
	Stocks	Stocks were directly allocated to all areas based on the number of stores requisitions made by the different cost centres.	All.
	Trade debtors/receivables	Trade debtors were allocated to all areas that had a billing element on the basis of turnover.	All.
	Other debtors/receivables	Other debtors/receivables were apportioned directly to the areas to which they related and include inventory.	All.
	Trade creditors	Trade creditors were allocated directly to the areas that they related to.	All.
	Long term provisions	Direct to the activities that give rise to the provisions in question.	All.
	Liabilities for taxation and dividends	No allocation required. Instead average liabilities should be taken into account when considering the operational cash requirements of each business.	All.

## 2. Network components

### 2.1. Network components for regulated services

Component	Description	Service(s)
<b>Access Loops</b>	Local lines connecting subscribers to remote concentrators/switch	See Routing Factor Matrix (Regulatory Financial Statements)
<b>Access Nodes</b>	Provides subscribers with broadband services	See Routing Factor Matrix (Regulatory Financial Statements)
<b>Line Cards</b>	Circuit boards interfacing switch with lines to/from subscribers	See Routing Factor Matrix (Regulatory Financial Statements)
<b>Leased Line Equipment</b>	Hardware and other equipment related to leased lines	See Routing Factor Matrix (Regulatory Financial Statements)
<b>National Transmission Equipment</b>	Hardware and other equipment related to local transmission lines	See Routing Factor Matrix (Regulatory Financial Statements)
<b>National Transmission Infrastructure</b>	Infrastructure related to national transmission equipment	See Routing Factor Matrix (Regulatory Financial Statements)
<b>National Transmission Ducts &amp; Cables</b>	Physical ducts and cables related to national transmission equipment and infrastructure	See Routing Factor Matrix (Regulatory Financial Statements)
<b>International Transmission Equipment</b>	Hardware and other equipment related to international transmission lines	See Routing Factor Matrix (Regulatory Financial Statements)
<b>International Transmission Infrastructure</b>	Infrastructure related to the above	See Routing Factor Matrix (Regulatory Financial Statements)
<b>International Transmission Ducts &amp; Cables</b>	Physical ducts and cable related to the above	See Routing Factor Matrix (Regulatory Financial Statements)
<b>Remote Concentrators</b>	An extension of the fixed line switch located in different areas across Gibraltar	See Routing Factor Matrix (Regulatory Financial Statements)
<b>Switching</b>	Main switch	See Routing Factor Matrix (Regulatory Financial Statements)
<b>VAS platforms</b>	Value Added Services platform	See Routing Factor Matrix (Regulatory Financial Statements)
<b>Core IP network equipment</b>	"Soft" switching equipment	See Routing Factor Matrix (Regulatory Financial Statements)
<b>Mobile</b>	Mobile network element, split into Radio Network, Switching, etc.	See Routing Factor Matrix (Regulatory Financial Statements)

2.1.1 The mobile network component consists of 16 separate network components including BTS/NodeB/eNodeB, BSC/RNC, MSC/MSS/GMSC/MME, MGW, SMSC, GGSN/SGSN/PGW/SGW, IN/Prepaid, HLR/HSS, NMS, Mobile Transmission, etc. Since only one single mobile service (mobile call termination) is currently regulated and in order to provide consistency with previous year ASR reports, all mobile network costs are aggregated into a single mobile component in the reporting formats.

### **3. Routing matrix**

#### **3.1. Network Component and Service Mapping**

- 3.1.1 The routing matrix provides a mapping between network components and (wholesale) services. The network components represent groupings of all the network infrastructure and associated operating costs needed to provide the regulated wholesale services. These wholesale services are either sold to other operators and/or to Gibtelecom retail businesses.
- 3.1.2 The actual routing factor matrix is part of Gibtelecom's ASR reporting and shown in the Regulatory Financial Statements document. As explained under point 2.1.1 above, the mobile network consists of 16 separate network components, each of which is allocated through the routing factor matrix. To simplify the reporting format of the routing factor table, all mobile network components have been aggregated (in the reporting table) into one single network component.
- 3.1.3 In most cases, routing factors are simple integer numbers (typically "1" or "2"), showing how many times a certain network component is needed to provide the corresponding service. As an illustration, an end-to-end fixed Network call needs 2 RCUs, 2 transmission infrastructure, and 1 switch, whereas a fixed terminating call uses only one RCU, one-time transmission infrastructure and one switch.
- 3.1.4 To calculate appropriate cost-allocations, these routing factors are volume-weighted, i.e. for each service, the routing factors are multiplied with the corresponding service volume. From these volume-weighted factors, allocation percentages are then derived for each network component, to allow for a complete and proportional allocation of costs to services. These allocation percentages are used throughout the ASR model to allocate all network-related costs.

#### **3.2. Non-integer Routing Factors**

- 3.2.1 The only occurrence of a non-integer routing factor in the case of wholesale DSL loops. In the RIO/RUO/BU-LRIC Model Notice with reference 120L, 120EB from 17 January 2011, the GRA allowed for a 50% cost recovery for loops, which are shared between DSL and voice services. The corresponding routing factor has therefore been set to 0.5.
- 3.2.5 As a consequence the wholesale access loop routing factor is non-integer as well, based on a weighted average of access loops with and without DSL service provided over the same loop.

## 4. Transfer Charges

### 4.1. Regulatory Obligations

4.1.1 Gibtelecom understands the purpose of the GRA decision C05/16, which states: “In the case of transfer charges, these typically reflect the vertically integrated nature of the Notified Operator and will enumerate the wholesale/retail relationships between the economic markets and services within the undertaking’s scope of activity. There should be a clear rationale for the transfer charges used and these should be clearly identified in sufficient detail to provide compliance with the transparency and non-discrimination obligations. The charge should be equivalent to the charge that would be levied if the product or service were sold externally rather than internally.”

### 4.2. Documentation and implementation of Transfer Charges

- 4.2.1 Gibtelecom amended its ASR model to provide significantly more detail and transparency in the reporting of transfer charges. Actual numbers are reported in the Regulatory Financial Statements document, which is part of Gibtelecom’s ASR submission.
- 4.2.2 Wherever Gibtelecom sells a product externally, the transfer charge has been set to be equal to the external price. This is currently the case for fixed call origination, fixed call termination, mobile call termination and leased lines.
- 4.2.3 In cases where a service is “sold” only internally to Gibtelecom’s retail business, the transfer price has been set according to the FAC HCA costs of that service. This is currently the case for all access services, national on-net calling, international calling and all remaining services.
- 4.2.4 All transfer charges (with the exception of remaining activities, which are shown as an aggregate number) are calculated as “price times volume” and are shown to reconcile with the numbers from Gibtelecom’s accounts.

## End of Attribution Methodologies Document