



REGULATORY
AUTHORITY

Information Provision

Proposed Instructions

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About these Instructions

These Instructions from the Regulatory Authority of Bermuda (the “Authority”) are in relation to the Information Provision obligation imposed on SMP operators in the electronic communications sector, set forth in [Insert name of GD] on [Date GD was issued].

This document constitutes Version 1.0 of the Information Provision Instructions issued via administrative determination. The Authority is intending to revisit these Instructions in the future, and if necessary, update it on the basis of market developments as well as consultation with the SMP operators and industry stakeholders.

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Definitions

Access Network: Relates to the part of the network that connects directly to customers, from a local aggregation/distribution point.

Accounting Separation: An obligation set forth in [name the final GD] to produce financial statements that report the performance of each Product Group of an SMP operator. Accounting Separation enables the Authority to monitor whether an operator with SMP is compliant with certain price-based obligations, such as to ensure prices are cost oriented.

Activity-based costing (“ABC”): A cost allocation methodology where costs are assigned to the services based on allocation keys presenting a causal link with the costs incurred.

Adjusted equally efficient operator (“adjusted EEO”): One of three possible standards used to identify the retail costs to be recovered; in this case, the costs to be recovered are the retail costs of the SMP provider, adjusted to the scale of an entrant. See also “EEO” and “REO”.

Authority: The Regulatory Authority of Bermuda, or sometimes referred to as “RA”.

Average avoidable cost (“AAC”): The average of the costs that could have been avoided if the operator had not produced a discrete amount of (extra) output

Average customer lifetime (“ACL”): The average revenue-generation duration for which a customer stays with a particular service provider.

Average revenue per user (“ARPU”): A measurement used to indicate the average monthly revenue earned from a customer who subscribes to a service.

Average variable cost (“AVC”): The average variable cost for a given unit of output.

Bandwidth: The amount of data that can be transmitted within a fixed amount of time, expressed in bits per second (bps) or bytes per second.

Broadband: An Internet service or connection generally defined as being “always on”, providing a bandwidth greater than narrowband.

Bundle: Communications services sold together in a package, in contrast to each service being sold on a stand-alone basis.

Capital expenditure (“CAPEX”): Funds used by a company to acquire, upgrade, and maintain assets such as property, industrial buildings, or equipment.

Common costs: Costs that are shared between multiple services supplied by an entity.

Consumer: Someone who purchases an electronic communications service (i.e. a retail product such as broadband). Consumer can also refer to a wholesale consumer, i.e. a supplier in the value chain who buys a service or product and then supplies it to the final consumer (or end-user).

Contract period: The duration of a fixed-term contract, for example a post-pay mobile tariff may have a contract period of 18 months. See also “Fixed-term contract”.

Core Network: The backbone of a communications network, which carries different services such as voice or data.

Cost causality: The attribution of costs to components, services and business divisions strictly in accordance with the activities that cause those costs to be incurred.

Cost Orientation: An obligation set forth in [name the final GD] to ensure that prices charged for products or services are reflective of the underlying cost of provision.

Current cost accounting (“CCA”): A form of depreciation in which an operator’s asset base is annualized based on the gross replacement cost of the assets.

Customer: Someone who purchases an electronic communications service. Customer and consumer are used interchangeably in this report, but customer usually refers to a customer of a specific service provider (i.e. a OneComm customer).

Customer premises equipment (“CPE”): Electronic equipment that is located in a customer’s premises such as an Internet modem or PayTV set-top box.

Ducts: Existing trenches and pipes in which copper and fibre lines are, or could be, installed.

Discounted cash flow (“DCF”): Approach used to calculate profitability, where revenues and costs are aggregated over time and discounted using an appropriate discount rate.

ECA: Electronic Communications Act 2011.

Equivalence of inputs (“EOI”): Under the FRAND obligation, the SMP operator must treat all access seekers equally. Under EOI, the downstream access product retailed by the vertically integrated operator with SMP in the wholesale market uses exactly the same physical upstream inputs as the downstream product supplied by competitors. The product development process is therefore the exact equivalent in terms of functionality and price. See also “EEO”.

Equally efficient operator (“EEO”): One of three possible standards used to identify the retail costs to be recovered; in this case, the costs to be recovered are the retail costs of the SMP operator. See also “adjusted EEO” and “REO”.

Equivalence of outputs (“EOO”): Under the FRAND obligation, the SMP operator must treat all access seekers equally. Under EEO, the access products offered by the wholesale SMP operator to alternative operators are comparable to the products that the wholesale SMP operator provides to its retail division in terms of functionality and price, but the products may be provided by different systems and using different processes. See also “EOI”.

Equi-Proportionate Mark-Up (“EPMU”): A means of recovering fixed and common costs through a mark-up in addition to the incremental costs. The costs to be recovered are allocated across a range of services so that each service is allocated the same mark-up as a percentage of its incremental costs.

Ex ante remedy: A regulatory obligation imposed by the Authority on one or more SMP operators in order to prevent anticompetitive conduct and promote competition.

Financial capital maintenance (“FCM”): An approach under which 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. This means that the depreciation charge to the profit and loss account includes holding gains or losses due to changes in asset prices.

Fixed-term contract: A contractual relationship between a provider of (electronic communication) services and a consumer that lasts for a specified period, also known as the “Contract period”.

FRAND: Fair, reasonable and non-discriminatory.

Fully Allocated Costs (“FAC”): An accounting method for attributing all the costs of a company to defined activities such as products and services. Typically, this method will follow the principle of cost causality.

Generally accepted accounting principles (“GAAP”): A collection of commonly followed accounting rules and standards for financial reporting.

General Determination: A statutory instrument made pursuant to section 62 of the Regulatory Authority Act 2011 (“RAA”). The General Determination is applicable to all operators, or to such sub-category of operators as falls within the scope of the statutory instrument.

Gross book value: The original price paid for an asset, without depreciation deductions.

Historical cost accounting (“HCA”): An approach to accounting whereby the costs that the operator actually incurs are used in the accounting statement.

Holding gains and losses: Annual changes in the value of an asset.

Individual Products: An individual service, product or tariff offered by an operator. Examples include a specific pre-pay mobile tariff, a 150 Mbps fibre broadband, or a specific PayTV package.

Individual Product Bundles: A specific bundled product made up of a two or more Individual Products. Examples include a bundle of 150 Mbps fibre broadband and a specific PayTV package; or a triple-play bundle of 150 Mbps fibre broadband, a specific PayTV package and a specific pre-pay mobile tariff.

International financial reporting standards (“IFRS”): A collection of commonly followed accounting rules and standards for financial reporting.

Integrated Communications Operating Licence (“ICOL”): A licence granting the licensee the right to establish, construct and operate one or more electronic communications networks and to provide electronic communications services, on an integrated basis, within the territorial limits of Bermuda, and between Bermuda and other countries.

Internal rate of return (“IRR”): The rate of return for an investment project that sets the net present value (“NPV”) of all cash flows (both positive and negative) from the investment equal to zero.

Key performance indicator (“KPI”): A measurable value that demonstrates how effectively a company is achieving its key business objectives.

Leased line: A transmission facility that is leased by a customer from a public carrier and which is dedicated to that customer’s traffic.

Long-run incremental costs (“LRIC”): The average of all the (variable and fixed) costs that an operator incurs to produce a particular product.

Margin squeeze test: An assessment of the margin that exists between the wholesale and retail prices set by an entity, in order to understand whether the prices are set such that an efficient entity purchasing the wholesale product would be unable to earn a reasonable return.

Mean capital employed: Total assets less current liabilities, excluding corporate taxes, dividends payable and long-term liabilities, with the mean computed from the start and end values for the financial year.

Mobile virtual network operator (“MVNO”): A provider of mobile telephony services, who does not have an allocation of spectrum or its own wireless network.

Modern equivalent asset (“MEA”): An approach to deriving asset values based on assessing the most efficient available technology that performs the function of the asset in question.

National regulatory authority (“NRA”): An organisation responsible for administering regulation in one or more of a nation’s sectors. The responsibilities of an NRA include assessing the need for *ex ante* regulation following the completion of a market review, and potentially imposing *ex ante* remedies in markets where significant market power is found.

Net present value (“NPV”): The value of all future cash flows (positive and negative) over the lifetime of an investment discounted to the present.

Non-SMP Product Groups: Products that are within a market that is not subject to *ex ante* regulation, i.e. the market is not covered by an SMP determination.

Office of Communications (“Ofcom”): UK regulator responsible for the regulation of the electronic communications sector.

Office of Fair Trading (“OFT”): (former) UK regulator responsible for ensuring fair trading, and now part of the UK competition authority.

Operating expenditure (“OPEX”): The costs of the day-to-day operation of a company, such as staff costs, repairs and maintenance expenditure, and overheads.

PayTV: Subscription-based television services.

Pure long-run incremental cost (“Pure LRIC”): A cost standard approach that assesses the variable cost to provide service for one additional customer.

Product Bundle Groups: Any combination of two or more Product Groups sold together in a package, i.e. as a bundle. Examples include broadband and PayTV bundles; and broadband and mobile bundles.

Product Groups: Major groups of products offered by an operator, and which include broadband, mobile, fixed voice, subscription television, business connectivity (i.e. leased lines) and off-island connectivity (i.e. submarine capacity). A further distinction is made between SMP Product Groups and non-SMP Product Groups.

Profit and loss statement (“P&L”): A financial statement showing a company’s financial performance in terms of revenues and expenses.

RAA: Regulatory Authority Act 2011.

REO: Reasonably efficient operator—one of three possible standards used to identify the retail costs to be recovered; in this case, the costs to be recovered are the retail costs of an entrant (with less scale than the SMP operator). See also “adjusted EEO” and “EEO”.

Regulatory asset value (“RAV”): The value ascribed by the Authority to the capital employed in the SMP operator’s regulated business.

Return on capital employed (“ROCE”): A measure of how efficiently capital is being used. It is calculated as accounting profit divided by the capital employed.

Second Consultation: The document published by the Authority in February 2019, named the “Market review of the electronic communications sector”. The document set out the Authority’s provisional view, at that time, on relevant economic markets, significant market power and requisite remedies.

Service level agreements, or guarantees (“SLAs”, “SLGs”): Commercial agreements under which the SMP operator is obliged to provide access to wholesale services with a specified level of quality.

Significant market power (“SMP”): A position of economic strength in the relevant market or markets that affords an entity, either individually or jointly with others, the power to behave to an appreciable extent independently of competitors and consumers, which may provide a basis for the imposition of *ex ante* remedies.

SMP Product Groups: Groups of products for which the operator has been found to have SMP.

Sub-groups of Products: A group of Individual Products within a Product Group. Examples of Sub-groups of Products include all pre-pay mobile services; or all fibre broadband products above a certain speed.

Time preference of money: In economics, the principle that people place a greater value on receiving a good or service earlier rather than later.

Virtual unbundled local access (“VULA”): A broadband access remedy that requires a network operator to provide access to its superfast broadband network. VULA provides a connection from the nearest “local” aggregation point to a customer’s premises.

Weighted Average Cost of Capital (“WACC”): The rate that a company is expected to pay on average to all its security holders to finance the company’s assets.

1 INTRODUCTION

1. The Regulatory Authority Act 2011 (“RAA”), section 12, sets out the principal functions of the Regulatory Authority of Bermuda (the “Authority”). These include ensuring that the regulation of the electronic communications sector promotes and preserves competition, promotes the interests of residents and consumers in Bermuda, promotes the development of the Bermudian economy, Bermudian employment and Bermudian ownership and promotes technological innovation.
2. Separately, sections 20–25 of the Electronic Communications Act 2011 (“ECA”) requires the Authority to complete a market review process in order to determine what, if any, *ex ante* regulatory remedies are required to address significant market power (“SMP”) in the supply of electronic communications services.
3. In the most recent market review (completed in 2019), the Authority identified SMP in a number of markets in the electronic communications sector. As a result of this finding of SMP, the Authority imposed remedies to address the competition concerns. For a full list of remedies, see [\[insert link to GD\]](#).
4. A number of SMP remedies span several markets and ultimately form the basis of the new regulatory regime for the electronic communications sector in Bermuda. Specifically, these remedies oblige SMP operators to:
 - i) comply with Accounting Separation;
 - ii) ensure Cost Orientation of prices;
 - iii) provide wholesale access on fair, reasonable and non-discriminatory (FRAND) terms, including by not engaging in a margin squeeze;
 - iv) provide information (including key performance indicators and market data) on a regular basis; and
 - v) ensure that consumers do not experience unnecessary difficulties when switching providers.
5. The Authority has decided to provide explicit guidance and instructions on these five key remedies, in order to:
 - provide more clarity and certainty on how the Authority will expect the SMP operators to act in order to ensure that the firms are compliant with the operators’ regulatory obligations;
 - provide greater clarity and certainty to the SMP operators on how the Authority will monitor compliance with these obligations;
 - assist interested stakeholders contemplating making a complaint to the Authority in relation to non-compliance with these obligations in understanding the

evidential threshold that needs to be met and the information that the Authority will require; and

- provide better outcomes for consumers by giving them greater ability to purchase the services that best meet their needs, subsequently driving competition, lower prices and higher quality.
6. These Instructions set out guidance in relation to the **Information Provision** obligation.
 7. In order for the Authority to regulate effectively and to monitor compliance with *ex ante* remedies, it is critical that the Authority has access to accurate and up-to-date market information.
 8. One key component of this relates to the cost and revenue information of SMP operators, and specifically the ability for the Authority to see costs and revenues broken down into Product Groups, such that profitability within each SMP market can be assessed. This provision is covered by the Accounting Separation obligation, which is discussed in detail in the Accounting Separation Instructions.
 9. However, in order to regulate effectively, the Authority will need more than just information on an SMP operator's cost and revenues. Additional requisite information is broadly divided into two types,
 - i. Network, tariff and customer information; and
 - ii. Key Performance Indicators (KPIs).
 10. These Instructions relate to the regulatory obligation put in place following an SMP designation pursuant to Part 4 of the ECA, and it is without prejudice to section 91 of the RAA, which empowers the Authority to make orders to produce information, where such information is necessary for the Authority to be able to perform its obligations under the RAA or under sectoral legislation.
 11. In these Instructions, the Authority provides information on what SMP operators will need to do to ensure compliance with the **Information Provision** obligation. The Instructions are structured as follows:
 - section 2 sets out the legal background;
 - section 3 provides guidance to SMP operators on what information SMP operators will need to provide in order to comply with the **Information Provision** obligation.

2 APPROACH TO INFORMATION PROVISION OBLIGATION

12. This section sets out guidance on how the Authority will assess compliance with the **Information Provision** obligation.
13. As set out above, the **Information Provision** obligation seeks to ensure that the Authority has the information required to carry out its duties, both under the RAA and ECA. To achieve this, in addition to the information on costs and revenues that will be provided by SMP operators in accordance with the Accounting Separation obligation, the Authority is mandating that the following information will also need to be provided.

- i. **Network, tariff and customer information**

Which can include:

- network coverage, such as the number of premises covered or passed;
- the menu of tariffs offered to customers, such as prices, the services provided (e.g. broadband speed) and contract terms; and
- customer numbers associated with each tariff, and the average revenue per customer.

- ii. **Key Performance Indicators (“KPIs”)**

This would enable the Authority to track the service quality that SMP operators are offering, at both a retail and wholesale level. The information would also be used by the Authority to monitor compliance with key *ex ante* remedies, such as the obligation to offer wholesale access on fair, reasonable and non-discriminatory (FRAND) terms and on an equivalence of outputs (EEO) basis.

14. This information will need to be presented to the Authority on a bi-annual basis, with a six-month gap between each instance of providing the information. Specifically, the information should be provided at two points across the year, and at each time should be as fully up-to-date as possible. The first delivery of this information must be no later than June 31, 2020, with the subsequent filings being every 6 months.¹
15. The remainder of this section provides more detail in respect of each of these two categories, to ensure clarity on how SMP operators will be able to ensure compliance with the **Information Provision** obligation.

¹ For example, if the General Determination were to be published on 1 January, the first delivery of this information must be submitted to the Authority by no later than 1 July. That information must be as current as possible. The Authority considers that to mean that the information should include information up to the end of the previous month—in this example, May.

2.1 Network, tariff and customer information

16. In order to comply with the **Information Provision** obligation, SMP operators will be required to provide the following information in respect of their electronic communications network(s), tariff and customers.

2.1.1 Network information

17. SMP operators will need to provide the following information on the electronic communications markets over which this **Information Provision** obligation applies (e.g. mobile and broadband).
- Network coverage. For broadband, this information should be in the form of the number of premises passed. For mobile services, this should be based on the population covered as well as the geographical area covered.
 - Network connections. This information should set out the number of actual connections. The information should be broken down for wholesale and retail customers.

2.1.2 Tariff information

18. In each retail electronic communications market over which this **Information Provision** obligation applies (e.g. mobile and broadband), SMP operators will need to provide information setting out all retail tariffs available during the assessment period, as well as any legacy tariffs still being used by customers, along with information on their service characteristics (e.g. price and speed).
19. The information should be sufficiently detailed to allow the Authority to understand all key dimensions of the tariff. For example, in respect of mobile tariffs, the information will need to clearly set out the various post-pay and pre-pay tariffs and make clear for each tariff:
- the tariff fees, including upfront fees, such as connection fees and customer equipment/handset fees, as well as ongoing fees, such as monthly tariff fees, and additional surcharges, for example, for using additional services or going beyond the inclusive allowances;
 - the key inclusions in the tariff, such as the included monthly allowances for mobile data, voice calls and text messages; and
 - the length of the contract associated with the tariff, for example where it is a 12-month contract.

2.1.3 Customer information

20. SMP operators will need to provide the following information on the electronic communications markets over which this **Information Provision** obligation applies (e.g. mobile and broadband).

- The number of customers, broken down by tariff. This should map the total customer base in that market to all the operator's tariffs. For example, if an operator had 100 customers and 10 tariffs, then Authority would wish to know how those 100 customers are distributed across those 10 tariffs.
- Total revenue from customers, broken down by tariff. As above, the Authority would wish to see how the total revenue in a market (e.g. retail broadband) is broken down by tariff.
- Average revenue per customer. This should be able to be quickly computed from the above two, i.e. dividing revenues by customers.
- Customer churn, broken down by tariffs, i.e. the number of new customers minus the number of customers who have cancelled or not renewed subscriptions.
- Average monthly usage, broken down by tariff. This should set out the average customer usage for each tariff. For example, for each broadband tariff this would set out the average data used per month (in gigabytes, Gb). For mobile tariffs, this should set out the total mobile data usage per month, as well as the number of voice call minutes and text messages sent per month.

2.2 KPIs

21. The Authority will require SMP operators in certain markets to provide information on KPIs, at the retail and wholesale levels. Both are discussed below.

2.2.1 Retail KPIs

22. SMP operators will be required to publish a small number of retail KPIs, and these will need to be published on the operator's website. The Authority's objective in requiring the SMP operators to make such information public is to increase public awareness of the quality of service provided by the SMP operators, and to better inform consumers about what services are available.
23. This information should encourage further competition between operators, specifically with regard to the quality of their retail service. The Authority views such information as a useful tool for measuring trends in consumer outcomes. If the number of consumer complaints was very high, and/or was increasing significantly over time, this might indicate some competition concern that may require regulatory intervention.
24. In retail markets in which the KPI obligation is imposed, SMP operators will be required to provide two pieces of information.
 - The actual service quality achieved by customers. This would, for example, involve presenting the average speed of broadband customer for different tariffs, e.g. if a customer is on a broadband tariff with an advertised 'up-to' headline speed of 100Mbps, what speed do such customers actually achieve on average?

- The number of customer complaints, sub-divided by topic (i.e. reliability, speed, contractual terms, or over-billing).
25. In respect of the first item (realized service quality) this information will help to inform whether or not retail customers are actually receiving the service advertised. If the actual service falls below a certain level, then consumers would be able to exit any contract without incurring any fees. This provision forms part of the obligations on SMP operators in regard to consumer switching, the details of which are set out in the Consumer Switching and Choice Instructions.
26. In respect of the second item (number of customer complaints), this will help the Authority to understand complaints made by retail customers, including the number of customers that are dissatisfied with the service received, as well as the nature of the types of complaints. This will enable the Authority to identify the main sources of customer dissatisfaction to be able to focus the Authority's resources on the most common and impactful issues facing retail customers.

2.2.2 Wholesale KPIs

27. In order to track the service quality that SMP operators are offering to wholesale access seekers, SMP operators are required to provide directly to the Authority and publish on their websites specific wholesale KPIs according to the service offered to access seekers, as well as the services that the operators provide to their own retail business divisions. Requiring wholesale KPIs to be published will provide transparency about the quality of the wholesale service offered, as well as data against which to assess whether the SMP operators are complying with FRAND and EOO obligations.
28. In wholesale markets in which the KPI obligation is imposed (broadband, mobile and business connectivity), SMP operators will be required to provide the following information.
29. **In respect of broadband:**
- The time taken to connect and/or migrate a retail customer, according to the retail business division of the SMP provider and for each access seeker.
 - The time taken to address network faults, from when the fault was first identified, according to the retail business division of the SMP provider and access seekers. Faults are defined here as lost or impaired service due to issues in the wholesale network (i.e. faults that are the responsibility of the SMP operator).
 - The number of faults that need to be fixed, according to the retail business division of the SMP provider and access seekers.

30. **In respect of mobile:**

- The number of days taken to port a mobile number, sub-divided by each MVNO, and for the SMP operator's own retail arm.
- The number of days taken to restore service to a customer, sub-divided by each MVNO, and for the SMP operator's own retail arm.
- The number of calls dropped/blocked, sub-divided by each MVNO, and for the SMP operator's own retail arm.

31. **In respect of business connectivity:**

- The time taken to connect and/or migrate a retail customer, sub-divided according to the retail division of the SMP operator and for each access seeker.
- The time taken to address network faults (from first identification), sub-divided according to the retail division of the SMP operator and access seekers. Faults are defined here as lost or impaired service due to issues in the SMP operator's network (i.e. those faults that are the responsibility of the SMP operator).
- The number of faults that require fixing, sub-divided according to the retail division of SMP operator and access seekers.