

**Local Dedicated Capacity:  
Pricing of Leased Lines and Ethernet Connections**

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**Consultation and Proposed Decision  
February 2013**

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## 1 INTRODUCTION

On 21 December 2012, the Malta Communications Authority (hereafter 'the Authority' or 'MCA') published a Response to Consultation and Decision on the MCA's new Bottom-Up Cost Model for Fixed Networks (hereafter 'BUCM2'). This Decision<sup>1</sup> (hereafter 'BUCM2 decision'), which also set the fixed termination and origination rates for Malta, followed a Public Consultation<sup>2</sup> (hereafter 'BUCM2 consultation'). The BUCM2 consultation summarised the model structure, the main network configuration assumptions of the model, the proposed fixed interconnection rates, as well as their respective glide-paths. These were subsequently mandated as of 1 January 2013.

The BUCM2 consultation had proposed to postpone the price-setting of the data-circuit block pending the conclusion of the market analysis for leased lines (market 6), which at the time was still under consultation.

In December 2012, the MCA published its Market Review and Decision entitled 'The Provision of dedicated capacity over leased lines in Malta'<sup>3</sup> (hereafter 'Leased Lines Market Analysis').

### 1.1 Scope of the Public Consultation

The scope of this public consultation is to propose revised prices for leased lines and ethernet connections which are still subject to price control obligations under the latest Leased Lines Market Analysis published by the Authority in December 2012.

**Consultation Question:**

**Interested parties are invited to comment on specific aspects covered throughout this Consultation Document.**

**For the sake of clarity and ease of understanding, the MCA encourages respondents to structure their comments in order and in line with the section numbers used throughout this document.**

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<sup>1</sup> MCA/D/12-1420

<sup>2</sup> MCA-C/mc/12-1375

<sup>3</sup> MCA/D/12-1441

## **1.2 Structure of the Document**

The remainder of this document is structured as follows:

- Section 2 summarises the decisions mandated in the Leased Lines Market Analysis;
- Section 3 summarises the differences in the BUCM2 scenarios modelled;
- Section 4 explains the costing methodology adopted;
- Section 5 explains the connection speeds considered in this Review;
- Section 6 proposes changes to the price structure;
- Section 7 summarises the prices currently in force;
- Section 8 summarises the proposed prices;
- Section 9 considers other relevant issues;
- Section 10 summarises the proposed decisions; and
- Section 11 presents the consultation framework.

## 2 THE LEASED LINES MARKET REVIEW AND DECISION

The Leased Lines Market Analysis published in December 2012 has concluded that GO plc (hereafter 'GO') holds Significant Market Power (SMP) in the following markets:

- The retail market for the provision of dedicated capacity over national leased lines;
- The wholesale market for the provision of dedicated capacity over national trunk segments of leased lines; and
- The wholesale market for the provision of dedicated capacity over terminating segments of leased lines in Malta.

Insofar as the retail market is concerned, the MCA withdrew the price control obligation. On the other hand, the MCA has retained the price control obligations with respect to the wholesale provision of services over national trunk and terminating segments of leased lines. This price control obligation applies for the provision of wholesale leased line services over analogue, digital SDH and Ethernet interfaces.

### 2.1 Delineation of Trunk and terminating segments of leased lines

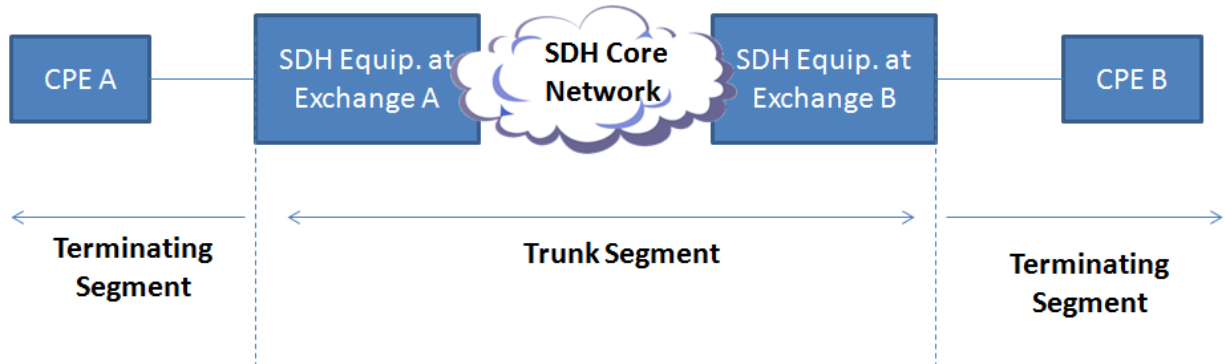
The market definition in the Leased Lines Market Analysis defines the delineation between wholesale trunk and terminating segments of leased lines as follows:

**Terminating segments** – these are the physical connections, over copper or fibre, between a local exchange (or an operator's trunk network) and a user site, including a modem (or other CPE) at the user site, used for the provision of dedicated capacity;

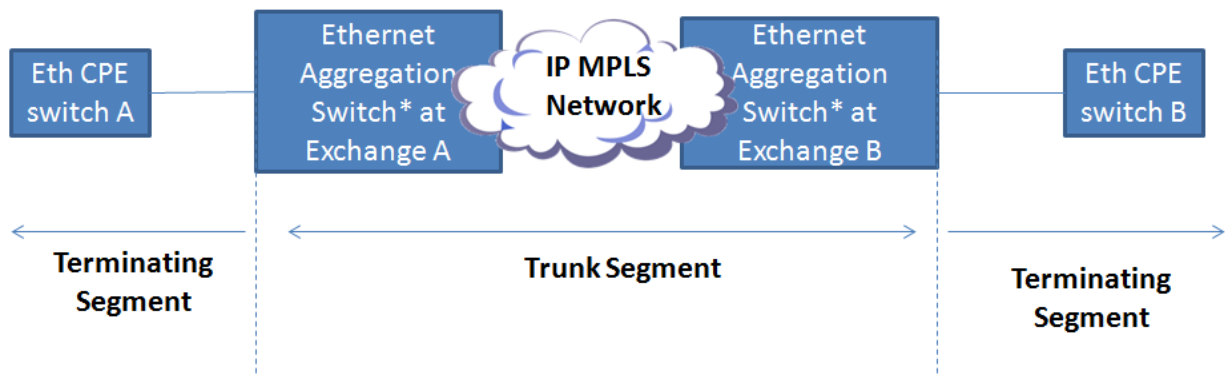
**Trunk segments** – these are the physical connections connecting two terminating segments.

This delineation can be applied to both traditional leased lines and Ethernet connections, as shown in the figures below.

**Figure 2.1: Typical Leased Line Set-up**



**Figure 2.2: Typical Ethernet Set-up<sup>4</sup>**



The BUCM2 is capable of calculating the prices for the wholesale trunk and terminating segments of leased lines and Ethernet connections in line with this definition.

## 2.2 Bandwidths

Leased lines are offered at different bandwidths. The Leased Lines Market Analysis makes reference to two bandwidth categories:

**"Bandwidth up to 2 Mbit/s** – these types of leased lines are typically sold in multiples of 64kbit/s (in 2006 referred to as the 'minimum set of leased lines'). Analogue leased lines and digital SDH leased lines with bandwidth not exceeding 2Mbit/s fall within this category;

<sup>4</sup> This diagram represents an end-to-end Ethernet connection setup. However, Ethernet connections can also be provided as half-circuit connections in which case these would consist of a terminating segment and part of the trunk.

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**Bandwidth exceeding 2Mbit/s** – this bandwidth category includes digital SDH leased lines supporting data rates above 2Mbit/s such as 34Mbit/s, 45Mbit/s, 155Mbit/s (STM-1), 622Mbit/s (STM-4), 1Gbit/s and 2.5Gbit/s interfaces. Ethernet connections are also included in this category on the argument that these are typically offered at a range of committed data rates of 10Mbit/s or more.”

The definitions for the retail and wholesale markets established in the Leased Lines Market Analysis do not include any specific interim bandwidth speeds.

### 3 BUCM2 SCENARIOS

As outlined in Section 1 the underlying model structure, the main network configuration assumptions, and other issues encountered in the development of BUCM2 were included as subject matter within the BUCM2 Consultation and therefore will not be included in this Consultation.

For the sake of clarity and understanding, the MCA is hereunder reproducing an overview of the two main scenarios modelled in BUCM2, namely:

- An '**As-Is**' scenario based on the latest financial year for which full year data is available (2011);
- An '**FTTC NGA and all-IP NGN**' scenario expected to reflect the modern efficient technological choice that meets the requirements of the EC Recommendation on the regulation of termination rates<sup>5</sup>.

The main differences between the two scenarios are detailed hereunder:

- **Voice systems:** the **As-Is** configuration simulates a network in which voice is still provided using legacy technology. In the **FTTC NGA and all-IP NGN** scenario, voice is instead provided over a converged all-IP network.
- **Transmission protocols:** in addition to an IP-based network, the **As-Is** configuration includes a (parallel) legacy SDH network for the provision of leased lines and for the backhaul of voice traffic from local exchanges. The **FTTC NGA and all-IP NGN** configuration instead models only a full IP-based network.

The MCA is using the **As-Is** Scenario as the basis for setting leased lines and Ethernet connection prices as this scenario best reflects GO's current network. Moreover, the **As-Is** Scenario is the only scenario that dimensions the legacy technology used to provide traditional leased lines. Going forward, the MCA may consider setting its pricing on the **FTTC NGA and all-IP NGN** Scenario, if the Authority deems fit to do so given market developments, such as an observed market transition towards Ethernet technology.

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<sup>5</sup> Commission of the European Communities, Commission Recommendation of 7.5.2009 on the Regulatory Treatment of Fixed and Mobile Termination Rates in the EU



## **4 COSTING METHODOLOGY ADOPTED**

BUCM2 calculates the long-run average incremental costs (LRAIC) plus a mark-up for common overheads costs for all of the modelled services. These average incremental costs are obtained by applying service costing routing factors to the annualised costs of each network element, taking into account the total output (Mbit/s, minutes, connections, etc.) that is carried by the network element in a given year.

The MCA is proposing to set the prices for wholesale local leased lines and Ethernet connections based on the LRAIC methodology. This is currently considered the best-practice methodology for pricing this type of service.

## **5 CONNECTION SPEEDS CONSIDERED IN THIS REVIEW**

In its 2008 Local Leased Lines Review<sup>6</sup>, the MCA had mandated the prices for leased lines with speeds between 64kbps and 2Mbps, as well as the prices for analogue and semi-digital connections. At the time, the EU Decision on the minimum set of leased lines (2003/548/EC) was still in force. However, considering the subsequent EU Decision (2008/60/EC) which effectively removed the minimum set, coupled with the almost inexistent demand for wholesale traditional leased lines with a speed of less than 2 Mbps, the MCA is proposing to establish the prices for the following speeds:

- 2 Mbit/s;
- 34 Mbit/s;
- 155 Mbit/s (STM-1);
- Unprotected I/C Path; and
- Protected I/C Path.

A similar approach is proposed for Ethernet connections. Whereas GO's current offer lists speeds in steps of 1 Mbps, Ethernet technology primarily defines set interfaces. The MCA is therefore proposing the prices for the following speeds:

- Ethernet 10 Mbit/s;
- Ethernet 100 Mbit/s; and
- Ethernet 1 Gbit/s.

The MCA expects that the proposed revised prices for the above-mentioned speeds gives GO an element of pricing flexibility on the remaining in-between speeds. The Authority would however like to clarify that all speeds at the wholesale level remain regulated and hence the MCA reserves the right to intervene on any claims of uncompetitive pricing behaviour in this regard.

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<sup>6</sup> <http://www.mca.org.mt/service-providers/decisions/local-leased-lines-pricing-review-april-2008>

## 6 PRICE STRUCTURE

The current price structure of a leased line comprises a connection fee and an annual charge, apart from a refundable security deposit.

The MCA's understanding is that the refundable security deposit is meant to safeguard GO against unsettled payments and the non-recovery of any equipment (owned by GO) hosted at the customer's end. On the basis of this, the MCA does not intend to mandate any changes in this regard.

The annual fees for the trunk and terminating segments resulting from BUCM2 take into account all the costs associated with the provision of leased lines and Ethernet connections. The MCA is of the view that any charge over and above the proposed annual charges contemplated in Section 8 hereunder would give rise to an element of double counting.

The above notwithstanding, the MCA is cognisant of the upfront investment undertaken by GO to provide such services. Therefore the MCA considers that appropriate measures should be in place to safeguard GO in this respect, and to ensure that economically efficient pricing signals are given.

The MCA is therefore proposing to change the nature of the connection fee currently in place, from a non-refundable connection fee to a refundable deposit. This would apply to both the wholesale local leased lines as well as to Ethernet connections, irrespective of the speeds offered i.e. including those speeds for which the MCA is not directly mandating a revision in prices.

The MCA is also proposing that this deposit shall be retained by GO for a period of twelve months from when the service is made available and it will subsequently be refunded to the customer. If the customer terminates the contract prior to this date, then the customer will forfeit this deposit.

This change will also apply to interconnection paths. In this case, the MCA is also proposing that the value of the refundable deposit is equal to that applied to other traditional leased lines, as shown in Section 8 (Table 8.1).

## 7 CURRENT WHOLESALE LOCAL LEASED LINES AND ETHERNET PRICES

### 7.1 Wholesale Local Leased Lines

The last revision to the local leased lines prices was carried out in 2008<sup>7</sup>. The rates currently in force are shown in Table 7.1 below.

**Table 7.1: Current Wholesale Local Leased Lines Prices (exclusive of VAT)**

Speed Type	Connection Fee	Annual Rental Prices		
		Terminating Segment	Trunk Segment	End-to-End Connection <sup>8</sup>
	€	€	€	€
<b>Analogue – 2 Wire</b>	N/A	140	N/A	280
<b>Analogue – 4 Wire</b>	N/A	279.5	N/A	559
<b>Semi-Digital – 2 Wire</b>	140	105	615	825
<b>Semi-Digital – 4 Wire</b>	140	209.5	615	1,034
<b>64Kbit/s (includes circuits up to 64Kbit/s)</b>	280	321.5	631	1,274
<b>128 to 768Kbit/s</b>	280	442.5	869	1,754
<b>832 to 1024Kbit/s</b>	280	765	1,500	3,031
<b>1088 to 1536Kbit/s</b>	280	1,007.5	1,973	3,988
<b>1600 to 1984Kbit/s</b>	280	1,289.5	2,527	5,106
<b>2 Mbit/s</b>	280	1,450	2,842	5,742
<b>I/C Path (to GO plc)</b>	2,078	1,067	2,089	3,156
<b>Protected I/C Path (to GO plc) additional to Standard I/C Path</b>	2,078	1,013	1,985	2,998

<sup>7</sup> <http://www.mca.org.mt/service-providers/decisions/local-leased-lines-pricing-review-april-2008>

<sup>8</sup> This price is assumed to include two terminating segments and a trunk segment, except for IC Paths.

## 7.2 Wholesale Local Ethernet Connections

Table 7.2 below shows the rates currently applied by GO for the local ethernet connections. Prices quoted are for half-circuit connections, as there is currently no disaggregation between the terminating and trunk segments.

**Table 7.2: Current Wholesale Local Ethernet Prices (exclusive of VAT)**

<b>Speed Type</b>	<b>Connection Fee</b>	<b>Annual Rental Wholesale (Half-Circuit<sup>9</sup>)</b>
	€	€
<b>10 Mbit/s</b>	932	4,896
<b>100 Mbit/s</b>	932	22,404
<b>1 Gbit/s</b>	932	114,000

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<sup>9</sup> Defined as one terminating segment and half a trunk.

## 8 PROPOSED WHOLESALE LOCAL LEASED LINES AND ETHERNET PRICES

This section contains the proposed prices of the wholesale trunk and terminating segments of local leased lines and ethernet connections as calculated from the BUCM2.

### 8.1 Wholesale Local Leased Lines

Table 8.1 below details the prices for wholesale local leased lines proposed to come into force around the beginning of third quarter of 2013<sup>10</sup>. Prices quoted are exclusive of VAT.

Table 8.1: *Proposed Prices for Wholesale Local Leased Lines*

	One-time Refundable Deposit	Annual Rental Prices		
		Terminating Segment	Trunk Segment	End-to-End Connection <sup>11</sup>
	€	€	€	€
<b>2 Mbit/s</b>	280	663	1,974	3,300
<b>34 Mbit/s</b>	280	787	16,174	17,748
<b>STM-1</b>	280	1,120	72,324	74,564
<b>I/C Path (to GO plc)</b>	280	587	1,975	2,562
<b>Protected I/C Path (to GO plc) additional to Standard I/C Path</b>	280	587	1,975	2,562

<sup>10</sup> The Proposed Decision needs to be notified to the Commission in accordance with Article 7(3) of Directive 2002/21/EC. Therefore the exact date of the coming into force of the new prices will be communicated in the Decision. In any case the MCA will, as a minimum, give a one month notice period.

<sup>11</sup> This price is assumed to include two terminating segments and a trunk segment, except for IC Paths.

## 8.2 Wholesale Ethernet Connections

Table 8.2 below shows the prices for wholesale ethernet connections proposed to come into force around the beginning of the third quarter of 2013<sup>12</sup>. Prices quoted are exclusive of VAT.

Table 8.2: **Proposed Prices for Wholesale Ethernet Connections**

	One-time Refundable Deposit	Annual Rental Prices		
		Terminating Segment	Trunk Segment	Half-Circuit <sup>13</sup> Connection
	€	€	€	€
<b>10 Mbit/s</b>	932	672	2,644	1,994
<b>100 Mbit/s</b>	932	672	15,388	8,366
<b>1 Gbit/s</b>	932	842	84,536	43,110

<sup>12</sup> The Consultation and Proposed Decision need to be notified to the Commission in accordance with Article 7(3) of Directive 2002/21/EC. Therefore the exact date of the coming into force of the new prices will be communicated in the Decision. In any case, the MCA will as a minimum give a one month notice period.

<sup>13</sup> Defined as one terminating segment and half a trunk.

## **9 OTHER RELEVANT ISSUES**

This proposed Decision focused on the revision of the wholesale local leased lines and Ethernet connections prices, in accordance with the price control obligation emanating from the Leased Lines Market Analysis.

This notwithstanding, the MCA welcomes any comments from interested parties in relation to the terms and conditions currently in place for the above services.

The MCA will analyse any comments received in this respect. If, following this analysis, the Authority finds that the comments raised can contribute to an improvement in the terms and conditions, the MCA will be amenable to propose changes to this effect.



## **10 SUMMARY OF PROPOSED DECISIONS**

**PROPOSED DECISION:**

**The MCA is proposing revised prices for wholesale local leased lines and Ethernet connections as outlined in Tables 8.1 and 8.2 above.**

**These proposed prices comprise of an annual rental fee and a refundable deposit (aimed at replacing the connection charge currently in place).**

**These revised prices are proposed to come into force as early as possible in the third quarter of 2013.**

## **11 CONSULTATION FRAMEWORK**

The MCA invites comments from interested parties on this consultation document. Comments on issues which are not specifically dealt with in this Consultation, but are directly related to the subject matter under this review, are also welcome.

Written representations may be made public subject to MCA's *Guidelines on Confidentiality* published on 16 December 2004.

The consultation period will run until close of business of 10 April 2013. Late submissions will not be considered. Comments should be sent to:

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