
Wholesale Unbundled Access to the Local Loop

**Identification and Analysis of Markets,
Determination of Market Power and Setting of Remedies.**

Consultation and Notification Document

27th November 2006

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Executive Summary

A new regulatory framework for electronic communications networks and services entered into force in Malta on the 14th September 2004. The framework is designed to create harmonised regulation across Europe and is aimed at reducing entry barriers and fostering prospects for effective competition to the benefit of consumers. The basis for the new regulatory framework is five new EU Communications Directives.

The new Directives require National Regulatory Authorities (NRAs), amongst other things, to carry out reviews of competition in communications markets to ensure that regulation remains appropriate in the light of changing market conditions. For a limited period, while those reviews are conducted and until the new Significant Market Power (SMP) conditions are imposed, some of the regulatory regime which existed prior to the 14th September 2004 continue to be in force in line with Article 39 and 40 of the Electronic Communications (Regulation) Act.

This review sets out the Malta Communications Authority's (MCA's) proposal for identifying a market and making a market power determination. The national consultation is being carried out in conjunction with the notification to the European Commission. Submissions to this consultation document may be forwarded to the MCA within the period ending on the 29th December 2006. Arrangements for submitting comments are explained in **Chapter 05**.

As required by Article 4 of the Electronic Communications (Regulations) (Article 7 of the Framework Directive), the MCA's proposals are being notified to the European Commission and to other NRAs.

Summary of Proposals

Identification of Markets

The group of products and services under consideration in this document consists of wholesale unbundled access to the local loop (including shared access) and related services. Wholesale services are those sold and purchased by electronic communications providers rather than end-users.

In relation to these services, the MCA proposes to identify the relevant market of wholesale unbundled access to the local loop, which:

- Excludes services provided over alternative technologies;
- Excludes bitstream services;
- Includes all self-supplied wholesale LLU (incl. Shared access) products and services¹ provided over the existing broadband copper networks; and
- Includes all wholesale LLU (incl. Shared access) products and services provided to third party ISPs, via all existing broadband copper networks.

¹ Services include collocation and other facilities related to LLU and shared access.

Assessment of Market Power

Based on the evidence presently available to the MCA and after having analysed the operation of these markets, and taken due account of the Commission's 'Guidelines on market analysis and the assessment of SMP' (SMP Guidelines), the MCA proposes that Maltacom Ltd should be designated as having significant market power in the market for wholesale unbundled access to the local loop. This preliminary conclusion is supported by a number of factors including:

- Market share analysis;
- Economies of scale and scope;
- Sunk cost and infrastructure not easily replicable;
- Vertical and horizontal integration;
- Barriers to switching; and
- Countervailing buyer power.

Full details of the MCA's draft decision and reasoning are contained in **Chapter 03** of this document.

Regulatory Implications

Given the position of dominance held by Maltacom in the market for wholesale unbundled access to the local loop, the MCA proposes to impose on Maltacom the following wholesale obligations:

- Access to wholesale unbundled local loops (including shared access) and other facilities;
- Non-discrimination;
- Transparency;
- Price control and cost accounting; and
- Accounting separation.

Full details of these remedies, including their effect and the reasons for proposing to set these conditions, are contained in **Chapter 04** of this document.

Chapter 1 Introduction

A new regulatory framework for electronic communications networks and services entered into force on the 25th July 2003. The framework is designed to create harmonised regulation across Europe and is aimed at reducing entry barriers and fostering prospects for effective competition to the benefit of consumers. The basis for the new regulatory framework is five new EU Communications Directives:

- Directive 2002/21/EC on a common regulatory framework for electronic communications networks and services (“the Framework Directive”);
- Directive 2002/19/EC on access to, and interconnection of, electronic communications networks and associated facilities (“the Access Directive”);
- Directive 2002/20/EC on the authorisation of electronic communications networks and services (“the Authorisation Directive”);
- Directive 2002/22/EC on universal service and users’ rights relating to electronic communications networks and services (“the Universal Service Directive”); and
- Directive 2002/58/EC concerning the processing of personal data and the protection of privacy in the electronic communications sector (“the Privacy Directive”).

The Framework Directive provides the overall structure for the new regulatory regime and sets out fundamental rules and objectives, which read across all the new directives. Article 8 of the Framework Directive sets out three key policy objectives, which have been taken into account in the preparation of this consultation document, namely promotion of competition, development of the internal market and the promotion of the interests of the citizens of the European Union.

The Authorisation Directive establishes a new system whereby any person will be generally authorised to provide electronic communications services and/or networks without prior approval. The general authorisation replaces the former licensing regime. The Universal Service Directive defines a basic set of services that must be provided to end-users. The Access and Interconnection Directive sets out the terms on which providers may access each others’ networks and services with a view to providing publicly available electronic communications services.

The Maltese legislation transposing these Directives came into effect on the 14th September 2004. The relevant pieces of legislation are the Electronic Communications (Regulation) Act, 2004 (hereinafter referred to as “ECRA”) and the Electronic Communications Networks and Services (General) Regulations, 2004 (hereinafter referred to “ECNSR”).

The new Directives require National Regulatory Authorities (NRAs) such as the MCA to carry out reviews of competition in communications markets to ensure that regulation remains appropriate in the light of changing market conditions.

Each market review is divided in three main parts:

- definition of the relevant market or markets;
- assessment of competition in each market, in particular whether any companies have Significant Market Power (SMP) in a given market; and

- assessment of what are the appropriate regulatory obligations which should be imposed given the findings on SMP (NRAs are obliged to impose some form of regulation where there is SMP).

More detailed requirements and guidance concerning the conduct of market reviews are provided in the Directives, the ECRA, the ECNS, and in additional documents issued by the European Commission and the MCA. As required by the new regime, in conducting this review, the MCA has taken the utmost account of the two European Commission documents discussed below.

01.1 Market review methodology

The European Commission has identified in its Recommendation, a set of markets in which *ex ante* regulation may be warranted. The Recommendation seeks to promote harmonisation across the European Community by ensuring that the same product and service markets are subject to a market analysis in all Member States. However, NRAs are able to regulate markets that differ from those identified in the Recommendation where this is justified by national circumstances. Accordingly, NRAs are to define relevant markets appropriate to national circumstances, provided that the utmost account is taken of the product markets listed in the Recommendation (Regulation 6 of the ECNS).

The European Commission has also issued Guidelines on market analysis and the assessment of SMP ("SMP Guidelines"). The MCA has also published a document outlining the guidelines on the methodology to be used for assessing effective competition in the Maltese electronic communications sector². The MCA is required to take these guidelines into utmost account when analysing a product or service market in order to assess whether the market under investigation is effectively competitive or otherwise (refer to Regulation 8 of the ECNS).

As required by Article 7 of the Framework Directive and Regulation 6 of the ECNS, the results of these market reviews and the proposed draft measures need to be notified to the European Commission and to other NRAs. The Commission and other NRAs may make comments within the one month consultation period. If the Commission is of the opinion that the market definition, or proposals to designate an operator with SMP or proposals to designate no operator with SMP, would create a barrier to the single market or if the Commission has serious doubts as to its compatibility with Community law, and issues a notice under Article 7(4) of the Framework Directive, the MCA is required by Regulation 6 of the ECNS to delay adoption of these draft measures for a further period of 2 months while the Commission considers its position.

The MCA has collected market data from a variety of internal and external sources, including providers of electronic communications networks and services, in order to carry out thoroughly its respective market definition and market analysis procedures based on established economic and legal principles, and taking the utmost account of the Relevant Markets Recommendation and the Guidelines.

² Link to market review methodology: <http://www.mca.org.mt/library/show.asp?id=513&lc=1>

01.2 Consultation

As required by Article 10 of the ECRA, the MCA is to publish the results of the market reviews and to provide operators the opportunity to comment on the findings prior to adopting the final proposals.

Furthermore, Regulation 6 of the ECNSR establishes that prior to adopting the draft measures proposed in the market review the MCA is required to notify the Commission with the findings of the market reviews, the proposed remedies and the outcome of the national consultation process.

The consultation period will run from the 27th November 2006 to the 29th December 2006 during which the MCA welcomes written comments on any of the issues raised in this paper. Further details on the public consultation are provided in **Chapter 05**.

01.3 Liaison with Competition Authority

There is a requirement on the MCA under Regulation 10 of the ECNSR to carry out an analysis of a relevant market within the Electronic Communications sector. This analysis must be carried out in accordance, where appropriate, with an agreement with the National Competition Authorities (NCA) under Regulation 10 of the ECRA.

In line with the co-operation agreement signed on the 20th May 2005 between the MCA and the Office of Fair Competition (OFC), the MCA has initiated a two-week consultation process with the OFC. The official position of the OFC in writing is expected in the coming days, which will then be made available to the general public.

01.4 Structure of the Document

The rest of the document is structured as follows:

Chapter 02 presents the MCA's preliminary conclusions on the definition of the market for wholesale unbundled access market in Malta. This section consists of a review of the market definition procedure and its scope, as well as demand-side and supply-side assessments at the retail and wholesale level;

Chapter 03 presents the MCA's market analysis for this market and outlines a preliminary view on whether this market is effectively competitive or identifies those undertakings having SMP; and

Chapter 04 provides a discussion of the general principles associated with remedies, identifies potential competition problems and outlines the proposed remedies on SMP operators, under the new regulatory framework.

Chapter 05 outlines details for providing comments to this consultation document.

01.5 Scope of this Review

This review considers the market for wholesale unbundled access to the local loops in Malta, which includes the provision of wholesale shared access and other related services to Internet Service Providers (ISPs) for the provision of retail services.

Chapter 2 Market Definition

Regulation 10 of the ECNS provides that before a market power determination may be considered, the MCA must identify the markets which are, in its opinion, the ones which, in the circumstances of Malta are the markets in relation to which it is appropriate to consider such a determination and to analyse that market. In identifying the relevant markets, the MCA is required to take utmost account of all applicable guidelines and recommendations issued by the European Commission.

The Recommendation states in Paragraph 4 that retail markets should be examined in a way that is independent of the infrastructure being used, as well as in accordance with the principles of competition law. Again this approach is at the heart of the MCA's analysis. The MCA's approach in assessing the markets is based on an analysis of competition levels and an assessment of the extent to which switching among services by consumers constrains prices, irrespective of the infrastructure used by the providers of those services.

In its Recommendation the Commission identified a market for wholesale unbundled access (including shared access) to metallic loops and sub-loops for the purpose of providing broadband and voice services. The MCA has conducted an assessment of the market for unbundled access in order to validate its appropriateness in the Maltese context, and as preparatory work for the assessment of SMP in this market.

This chapter outlines the MCA's findings setting out the different products that the MCA has identified, and giving reasoning for its proposed conclusions.

02.1 Background to the Local Loop Unbundling services in Malta

According to statistics published by the National Statistics Office³ the total population of Malta stands at approximately 403,600 and there are approximately 128,000 residential units and 31,000 non-residential units.

As at end June 2006 the number of traditional PSTN lines stood at 165,925 residential and 35,750 business connections. In 2003 the MCA mandated Maltacom to published a reference unbundling offer (RUO). To date no service provider has shown interest in taking up any of the unbundling services offered by Maltacom.

02.2 Market definition process

The purpose of the market definition process is to identify the competitive constraints that electronic communications service providers face. There are two dimensions to the definition of a relevant market: the relevant products to be included in the same market and the geographic extent of the market. The MCA's approach to market definition follows that identified in MCA's market review methodology.

02.3 Delineation of the wholesale market

The delineation of the markets is based on an analysis of demand and supply substitutability between different products and services which could potentially form part of the market under investigation. Currently the following services are offered over the copper network:

³ <http://www.nso.gov.mt/>

- Metallic path full unbundling
- Metallic path shared access
- Metallic path sub-loop full unbundling
- Metallic path sub-loop shared access
- Collocation
- Related facilities

This section provides an analysis of the degree of substitutability between these services provided over the copper network and other available services in Malta, taking also a forward-looking approach with respect to possible developments in the market under review.

Given this it follows that, at the wholesale level, the following aspects will be analysed:

- Are unbundled access (including shared access) and bitstream access services equivalent?
- Is it possible to offer services equivalent to unbundled access over different technologies?
- Should self-provision and other wholesale products be included in the same relevant market?

2.3.1 Are unbundled access and bitstream access services within the same wholesale market?

The main difference between LLU (including shared access) and bitstream access is the provisioning of the DSLAM. In the case of LLU (including shared access) the new entrant always operates the DSLAM, whereas in the case of bitstream access, the incumbent operates the DSLAM.

Demand-side substitutability

In order to assess the demand-side substitutability between LLU and shared access services, the MCA considered whether access seekers would consider bitstream services a suitable alternative to resort to in the short run and at no high cost, if the LLU provider applies a hypothetical price increase for its wholesale product.

Functionality

There is no difference in the end product (broadband Internet) that can be provided based on both access products. However from a functional perspective bitstream access offers less flexibility to the access seekers. With LLU the access seekers have full control over the services they offer for example, the OLO could offer ADSL 2+ services even though the LLU provider is still offering ADSL services.

National Coverage

Other providers (including LLU access seekers themselves) apart from the incumbent LLU provider could offer Bitstream services. However, different providers might operate in different areas.

Ease of access for ISP

An access seeker will in most cases be offering DSL services itself. This means that the OLO would be in a position to take up a bitstream offer relatively easy with practically no changes in its network setup. However such a move would result in significant sunk costs for the OLO as a result of the earlier investment related to the provision of services over LLU wholesale products. Furthermore, if an ISP is currently providing broadband services based on bitstream access, it is likely that it would not find it feasible to acquire access services over LLU following a hypothetical 10% increase in the price of bitstream access.

Immediacy of provision of bitstream access services

Given that most LLU providers offer DSL services themselves, the provision of bitstream access services would not represent an undue burden. Though LLU access seekers can provide bitstream services as well, the cost of such offers would most probably be negatively impacted by the LLU price increase.

Another consideration is the reaction of access seekers in response to a hypothetical price increase by the bitstream access provider. In this case given the significant investment related to the uptake of LLU products it would be highly unlikely that an access seeker would consider taking up an LLU offer.

Given the functional differences and economical issues highlighted above it is clear that bitstream access and LLU (including shared access) are not considered to be appropriate demand-side substitutable.

Supply substitutability

The MCA also considered whether existing/new undertakings will easily enter the market at no significant high costs and in short run, following a price increase of the LLU offer by a hypothetical monopolist.

An existing bitstream provider could in theory upgrade its network and start offering LLU services. However, due to the significant sunk cost involved in deploying a fully fletched PSTN network such a move would not likely be feasible following a small price increase.

There is also the possibility of a new PSTN infrastructure being deployed following a hypothetical price increase. However the high barriers to entry and timelines involved in the construction of a new fixed network with such extensive coverage makes such an entry an impractical alternative in the timeframe of this review.

Given the above bitstream access and LLU (including shared access) are not considered to be supply-side substitutable.

Preliminary Conclusion

Based on the above considerations the MCA is of the view that unbundled access (including shared access) and bitstream services are not equivalent and therefore do not form part of the same relevant wholesale market.

2.3.2 Is it possible to offer services equivalent to unbundled access over different technologies?

As part of the market definition exercise, it is also important to assess whether other technologies are capable of providing services equivalent to unbundled local loops and therefore whether they form part of the same relevant product market.

Although unbundled access offers the possibility to access seekers to offer a range of different services, experience has shown that to date OLOs tend to concentrate on the provision of broadband services.

A quick overview of the market shows that currently broadband services are supplied over the PSTN and cable network. However, over the next 24 – 36 months these technologies are expected to be supplemented by new BWA, 3G/HSDPA and DTTV networks capable to provide broadband services.

It is important to examine whether any of these technologies will be capable to offer equivalent services to LLU over the PSTN network.

In May 2005, the MCA issued two grants of rights of use for DTTV systems. These operators were bound by the licence conditions to complete their network deployment (i.e. 95% nationwide coverage) by October 2006. To date only one of these operators is marketing its services. However, currently these do not include data services and to the knowledge of the MCA the operators in question are not likely to offer such services within the timeframe of this review.

In terms of satellite broadband, services are provided by undertakings outside the Maltese territory, so far. Numbers of satellite broadband subscribers in Malta are limited to a few hundred and hence do not impinge on overall broadband market shares to any significant degree. Although satellite communications offer the possibility of broadband connections, they do present some limitations namely latency and capacity offered. Latency is ingrained in satellite communications due to the inherent long distances the packets have to travel. Several techniques are deployed to reduce it as much as possible, still it is very difficult to eliminate completely. In most cases, the connection capacity offered by satellite connections does not exceed 2 Mbps. Optimisation techniques are usually deployed to enhance the bandwidth usage on these connections, including compression. Thus satellite connections might not be suitable for certain applications with specified requirements for bandwidth and latency such as VoIP and online gaming. Current developments are improving the situation and VoIP is slowly being deployed over satellite connections as well.

With regards to 3G, one of the mobile operators has already launched its service this summer, while the other operator is expected to start marketing its services in 2007. However, it is expected that full coverage will only be achieved by 2010. With the deployment of HSDPA download speeds of up to 14.4Mbps will be made possible. Nonetheless this will be dependent on a number of issues such as vicinity to base station and number of concurrent users, which could result in lower connection speeds. Moreover, in order to access the system, consumers will need to buy new phones which initially are expected to be expensive compared to traditional 2G phones. The costs associated with the various data services offered over these infrastructures are also likely to be on the high side.

A number of broadband wireless access networks will be deployed over the coming months. Some of these networks will be based on license-exempt bands, namely used for WiFi. However these bands are utilised on a non-interference, non- protection basis. This implies that there is no quality of service guarantees as would be the case with licensed frequency bands.

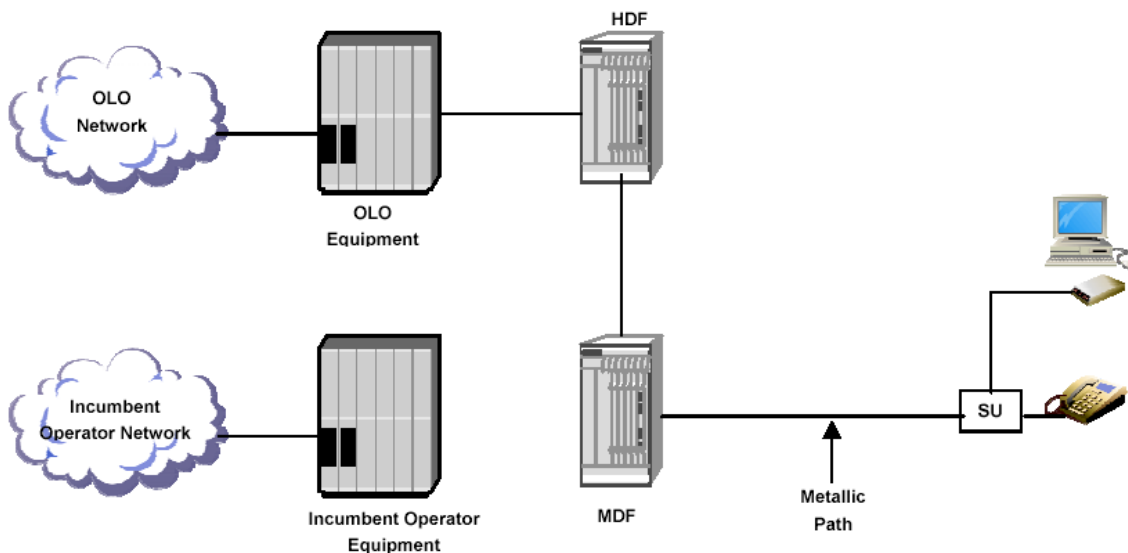
On the other hand, three of these BWA networks will be deployed in the 3.5GHz band i.e. using licensed spectrum. The deployment timelines stipulate that by April 2007 the 3 BWA networks should have between 33% and 50% national coverage depending on the applicable licence conditions. In all three cases, completion of the network deployment is expected by 2009. To date, none of the licence holders has started the deployment of its BWA network.

In their submissions all the operators in question stated they would be deploying networks based on the upcoming 802.16e (WiMax) standard. Statistics show that penetration of BWA networks (currently based on proprietary standards) is still very low. Development of in-built WiMax receivers for laptops, similar to what we currently have for WiFi, is expected to boost the uptake of this technology. However such development is expected to take place towards 2008, which would be near the end of the timeframe of this review.

The cable operator on the other hand already owns a nationwide bidirectional network capable of providing bitstream services. This therefore calls for a detailed analysis assessing whether given the current technology, cable network operators are able to provide unbundled access.

A. Unbundled Access over PSTN Network

Local loop unbundling (including shared access) is a process that gives other authorised operators (OLOs) the possibility of using the twisted copper pair from the exchange building to the customer premises. The twisted copper pair is still owned by the incumbent PSTN operator.



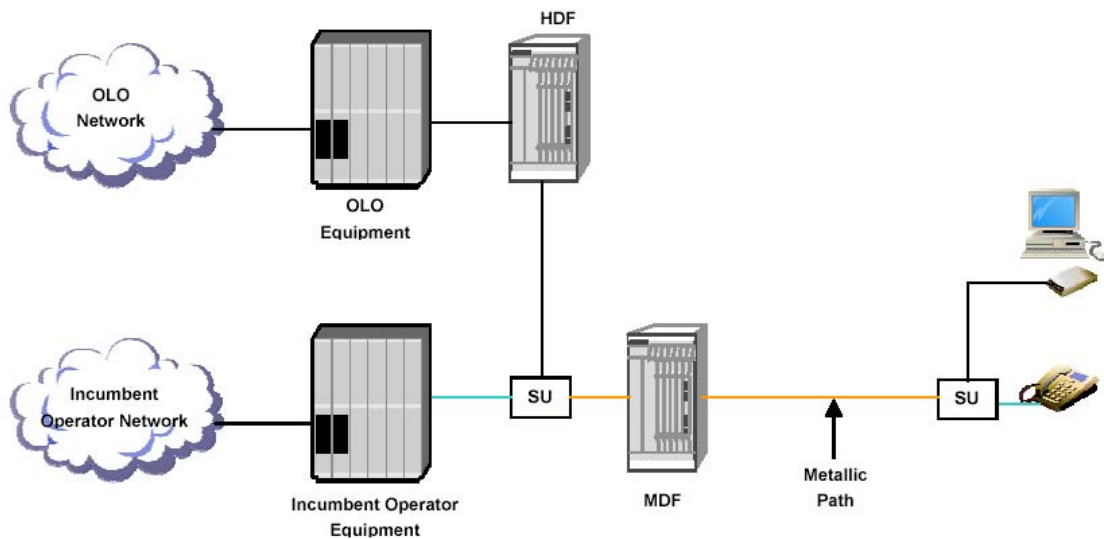
HDF – Handover Distribution Frame

MDF – Man Distribution Frame

SU – Splitter Unit

The local loop runs from the customer premises to the main distribution frame (MDF), from where the copper pair is terminated on the OLO exchange through the handover distribution.

DSL operates on the upper frequency bands of the local loop thereby enabling broadband speeds. This gives the possibility to the OLO to share the local loop with the incumbent. This product is known as shared access to the local loop. In this case, the OLO offers the broadband services, while the incumbent maintains its voice offerings to the end-user in question.



HDF – Handover Distribution Frame

MDF – Main Distribution Frame

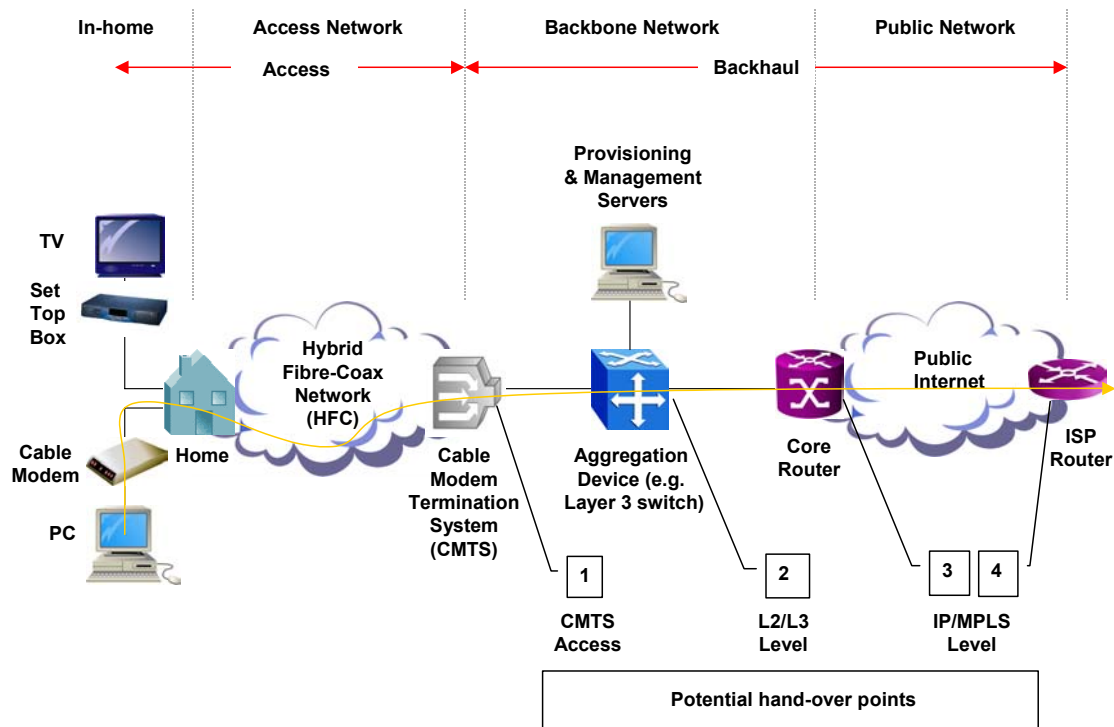
SU – Splitter Unit

In the case of shared access, at the Main Distribution Frame (MDF) the splitter forwards user data to the OLOs Digital Subscriber Line Access Multiplexer (DSLAM) and voice calls to the incumbent's telephony exchange.

B. Unbundled Access over Cable Network

A data over cable system utilises TV channels for the transmission of data services at broadband speeds. Data from the users' PC is transferred over the hybrid fibre-coax (HFC) network after being modulated by the cable modem. At the headend, upstream data is transferred to the Cable Modem Termination System (CMTS) which acts as a concentration device and provides connectivity into the backbone network. At this point, the data is processed and routed to the Internet.

As in the case of DSL, there are various possible points of interconnection over the cable network as shown in the diagram below. Most of these options fall under the umbrella of bitstream services and therefore are outside the scope of this review.



Option 1 depicted above is known as CMTS Access. This can actually be accomplished in either one of two ways. An alternate operator may decide to actually co-locate CMTS equipment at the cable operator's headend and interface on the RF side to the HFC network. This is technically possible. However, CMTSes for each operator would need to use distinct frequencies in both the upstream and downstream portions of the spectrum of the HFC network. While this may be simple to achieve in the downstream, upstream spectrum is very limited, so potentially this could only work in a limited fashion with a small number of third parties. Also as outlined in ERG (03)33 rev2, there is another problem with the way the DOCSIS cable modem identifies the correct parent CMTS. Another way of potentially interconnecting at the CMTS is to handover at the network side, however currently this is not considered technically feasible.

Preliminary Conclusion

A number of different technologies are in the process of being deployed, however given the rollout timeframes involved and due to practical/technical limitations they are considered to fall outside the scope of this review.

The cable operator already owns a nationwide network which has been deployed for a long time. However, considering the technical limitations outlined above, particularly the availability of upstream spectrum, it is not deemed a feasible alternative for local loop unbundling over the PSTN network.

Based on the analysis provided above the MCA is of the view that wholesale unbundled access to the local loop cannot, within the timeframe of this review, be provided over alternative technologies.

2.3.3 Self-provision and other wholesale services provided to third parties

Demand-side substitutability

There are currently no third party service providers purchasing wholesale unbundled access in Malta. The provision of wholesale services by the existing network operator is purely to serve its own retail arm. Nevertheless, the MCA considers that the self-provision of wholesale unbundled access should be included in this market since there is no distinction between the services provided internally or to third parties service providers. Furthermore, if a network operator increases the price of its wholesale unbundled access it will increase both the cost of access for the third party service provider and also to its own downstream retail provider. Therefore, self-supplied wholesale unbundled access and wholesale services provided to third party providers face the same pricing constraint.

Preliminary Conclusion

Given the above, the MCA considers that self-provision of wholesale unbundled access and other wholesale services provided to third parties form part of the same relevant market.

02.4 Relevant geographic market

A relevant geographical market comprises the area in which the undertakings concerned are involved in the supply and demand of products and/or services, in relation to which the conditions of competition are sufficiently homogeneous and which can be distinguished from neighbouring areas because the conditions of competition are appreciably different to those areas.

According to the EU Guidelines, in the electronic communications sector, the definition of the geographical scope of the relevant market is generally determined with reference to the area covered by a network, and to the existence of legal and other regulatory instruments.

Based on the above characterisation of the geographical scope of a relevant market and the market conditions described earlier on, the MCA takes the view that the relevant geographic market for the relevant product and service markets under consideration is the national territory of Malta.

02.5 Preliminary Markets

Following the analysis presented above, and in line with the European Commission's view outlined in the Recommendation on Relevant Markets, the MCA concluded that the national market for 'Wholesale Unbundled Access to the Local Loop' services:

- Excludes services provided over alternative technologies;
- Excludes bitstream services;
- Includes all self-supplied wholesale LLU (incl. Shared access) products and services⁴ provided over the existing broadband copper networks; and
- Includes all wholesale LLU (incl. Shared access) products and services provided to third party ISPs, via all existing broadband copper networks.

⁴ Services include collocation and other facilities related to LLU and shared access.

Chapter 3 Market Analysis

Having identified the relevant market as discussed in **Chapter 02** the MCA is required to analyse the market in order to assess whether any undertaking has significant market power as defined in Regulation 8 of the ECNS (Article 14 of the Framework Directive).

03.1 Method to assess Significant Market Power

Under the new EU Communications Directives and Article 4(8) of the ECRA, SMP has been newly defined so that it is equivalent to the competition law concept of dominance. Article 14(2) of the Framework Directive states that:

"An undertaking shall be deemed to have significant market power if, either individually or jointly with others, it enjoys a position equivalent to dominance, that is to say a position of economic strength affording it the power to behave to an appreciable extent independently of competitors, customers and ultimately consumers."

Further, Article 14(3) of the Framework Directive states that:

"Where an undertaking has significant market power on a specific market, it may also be deemed to have significant market power on a closely related market, where the links between the two markets are such as to allow the market power held in one market to be leveraged into the other market, thereby strengthening the market power of the undertaking".

Therefore, in the relevant market, one or more undertakings may be designated as having SMP where that undertaking, or undertakings, enjoys a position of dominance. Also, an undertaking may be designated as having SMP where it could lever its market power from a closely related market into the relevant market, thereby strengthening its market power in the relevant market.

In assessing whether an undertaking has SMP, this review takes the utmost account of the Commission's SMP Guidelines as well as the MCA's equivalent guidelines, as referred to in Chapter 01 above.

03.2 Assessment of SMP against relevant criteria

This chapter considers whether dominance is likely to exist in the identified market. In the MCA's view the assessment is fully compliant with the Commission's Guidelines. The SMP assessment set out is based on the evidence available to the MCA.

Single dominance can be assessed using a large number of criteria, as described in the Commission's and the MCA's guidelines on SMP assessment. In the MCA's view, the most important ones are:

- Market share analysis;
- Economies of scale and scope;
- Sunk cost and infrastructure not easily replicable;
- Vertical and horizontal integration;
- Barriers to switching; and

- Countervailing buyer power.

These are in turn discussed in detail below.

3.2.1 Analysis of market shares

Although, high market shares are not in themselves decisive as to whether an undertaking enjoys SMP in a market, the MCA is of the opinion that market shares higher than 50 per cent would indicate SMP

In the context of the definition of the wholesale market the MCA included self-supplied lines as well as third party unbundled lines in the relevant market. Provided that currently there are no unbundled lines provide by any other operators, this implies that Maltacom possesses 100 per cent market share in the wholesale market for unbundled local loops. This market share is an enduring one and it is also likely that within the timeframe of this review no new operator will start offering unbundled lines.

3.2.2 Economies of scale and scope

Given the ubiquity and the high density of its network, Maltacom enjoys economies of scale in the provision of wholesale unbundling services. Maltacom owns all the PSTN connections in Malta and therefore it is likely that the per unit cost of providing the wholesale input for this service would be lower than that of a new entrant.

The same infrastructure used for the provision of unbundled local loops can be utilised for the provision of other services. This is especially so where the undertaking owning the infrastructure has a ubiquitous network and is in turn present in a number of markets as is the case with Maltacom. Thus the MCA considers economies of scope as an added factor contributing to Maltacom's ability to provide wholesale unbundled local loops at significantly lower costs than any other new alternative provider.

The ability of Maltacom to take advantage from the combined benefits resulting from economies of scale and scope suggests that this undertaking is likely to enjoy SMP in the provision of wholesale unbundled lines.

3.2.3 Sunk costs & infrastructure not easily replicable

Sunk costs are those costs that a new entrant must incur to enter the market but which are not recovered on exit. The significant sunk costs incurred by Maltacom associated with underlying network infrastructure over which wholesale unbundled lines are provided, have been identified in earlier sections of this report.

A potential entrant in the market for the provision of wholesale unbundled lines will only seek to incur these costs if its expected return from such an investment would be sufficient to cover such costs.

To date no operator has requested wholesale access to unbundled lines and therefore it is unlikely to be economically feasible for any new entrant to replicate Maltacom's network infrastructure for the provision of wholesale unbundled lines during the time frame of this review.

3.2.4 Vertical and horizontal integration

Maltacom is the only provider of wholesale unbundled lines and also provides the absolute majority of retail PSTN lines in the market. Furthermore, Maltacom operates in a number of

other fixed markets and provides a wide range of services over its infrastructure. Given that Maltacom enjoys significant market power in a number of these markets, there is the possibility that it leverages market power from these markets to others. A new entrant would therefore find it difficult to enter the market and erode the market power of Maltacom within the timeframe of this review.

The MCA is of the view that all these factors present major barriers to entry for alternative operators in the market for wholesale unbundling lines, thus limiting potential competition.

3.2.5 Countervailing buyer power

Maltacom has been identified as the sole provider of wholesale unbundled lines. This implies that any large company making use of wholesale unbundled lines and which also purchases a suite of other wholesale services from Maltacom cannot exert sufficient countervailing buyer power to pose a serious price constrain on the price of wholesale products in the absence of regulation. In absence of a feasible alternative, Maltacom would not face any countervailing buyer power from its customers.

3.2.6 Barriers to switching

Where customers have alternative suppliers to the incumbent, the market power may be reduced since the incumbent would face a competitive threat from alternative suppliers. As argued earlier a new entrant wanting to replicate Maltacom's network would find it very difficult due to various barriers to entry such as economies of scale and scope, as well as sunk costs. This in itself presents a barrier to switching for customers at the wholesale level hence the incumbent faces no competitive threat from alternative operators in terms of customer switching.

03.3 Preliminary conclusions and SMP designations

The evidence presented above suggests that Maltacom enjoys SMP in the provision of wholesale unbundled access to the local loop services market.

This preliminary conclusion is supported by a number of factors including, high market shares; Maltacom is a vertically and horizontally integrated provider supplying a full range of electronic communications services both at wholesale and retail level; Maltacom enjoys economies of scale and scope; and there is lack of countervailing buyer power.

Chapter 4 Regulatory Implications

04.1 Introduction

In accordance with Regulation 10(4) of the ECNSR, where an operator is designated as having significant market power on a relevant market in accordance with Regulation 8 of the same ECNSR the MCA is obliged to impose on such operator such appropriate specific regulatory obligations referred to in subregulation (2) of regulation 10 of the ECNSR or to maintain or amend such obligations where they already exist.

Moreover, in accordance with Article 17 of the Universal Service Directive, Regulation 37 of the ECNSR requires the MCA, after having designated an operator as having significant market power on a relevant retail market, to impose on such operator such obligations as it considers appropriate to achieve those objectives set out in Article 4 of the Electronic Communications Regulation Act.

This section thus aims at discussing the actual and potential competition problems that exist in the defined markets, and proposing adequate remedies to address these problems.

04.2 Competition Problems

The MCA identified a number of competition problems arising from the dominance held by Maltacom in this market, primarily the risk of leveraging. Leveraging may be exercised by operators having SMP in two forms:

Vertical leveraging is the practice of a dominant firm whereby proper access to an essential input that it provides is denied with the dominant's firm intent of extending its power from one segment of the market (the bottleneck segment) to the other (the potentially competitive segment). Such practice may be both price-related and otherwise.

The MCA believes that there exists a potential for vertical leveraging with respect to the wholesale market under review.

Maltacom, as a vertically integrated operator which is dominant in an upstream market may, unless prohibited by effective regulatory intervention, engage in pricing that gives rise to a margin squeeze. Furthermore, since it is able to access economies of scale and scope that are not so readily available to potential operators competing at the downstream level, the said undertaking may bring extra pressure to bear on the margins available for competing downstream operators. Maltacom may also resort to other price leveraging strategies such as price discrimination, predatory pricing and cross-subsidisation.

The MCA believes that non-price leveraging strategies such as denial of access, the discriminatory use or withholding of information, delaying tactics, quality discrimination and the imposition of undue requirements on, and with respect to, potential alternative service providers at the downstream level, may contribute significantly to the creation of a non-competitive environment.

Horizontal leveraging involves the dominant undertaking using its position in one market to exert undue influence on other markets at the same level in the value chain. This form of leveraging can be exercised by Maltacom as it operates in a number of horizontal wholesale markets and can potentially leverage its power from one market to another.

The above competition problems are further accentuated by the fact that Maltacom has single market dominance in the relevant markets under review. This results in the possibility

of Maltacom to exercise entry deterrence, exploitative behaviour and productive inefficiencies.

04.3 Available Remedies

As stated previously, the MCA is obliged under the ECNSR to impose at least one of the remedies outlined in the Regulations on undertakings with significant market power. In particular the following obligations may be imposed:

- Transparency (Regulation 18)
- Non-discrimination (Regulation 19)
- Accounting Separation (Regulation 20)
- Access to, and use of, specific network facilities (Regulation 21)
- Price control and Cost Accounting (Regulation 22)

04.4 Principles applied in the Selection of Remedies

In accordance with regulation 37(2) of the ECNSR, the MCA is obliged to ensure that any remedy imposed on undertakings enjoying significant market power shall be based on the nature of the problem identified and be proportionate and justified in the light of the objectives laid down in Article 4 of the ECRA. Remedies imposed shall operate in such manner as to protect end-user interests whilst promoting effective competition in the relevant markets.

The MCA is obliged to impose the least burdensome and most effective remedy or remedies to address the potential competition problems identified in this market. However, depending on the competition problem being addressed, an interaction between diverse remedies may be necessary. Thus, the available remedies detailed above are complementary in that they support and reinforce each other.

In selecting the remedies to impose on the designated SMP operator the MCA has considered the nature of the problem identified and, in accordance with the principle of proportionality, where necessary, will impose a range of remedies which are considered to be the least burdensome effective remedies. The MCA has also taken account of potential effects on any related markets

Finally, the MCA has done its utmost to ensure that the remedies chosen will be incentive compatible. This means that the MCA has selected and designed the remedies to be imposed in a manner that ensures that compliance with the remedy by the undertaking identified as having SMP outweighs the benefits of evasion.

It is unlikely that any single remedy can achieve this, so the remedies proposed below should be seen as a complementary suite which support and reinforce each other.

04.5 Proposed Wholesale Remedies

The MCA is of the opinion that the obligations it is proposing to impose are based on the nature of the competition problems it has identified in the relevant markets it is proposing to define, and are proportionate and justified in light of the objectives set out in Article 4 of the Electronic Communications (Regulation) Act.

The MCA will however continue to monitor market developments and where appropriate shall issue directions to further fine-tune the proposed remedies to the needs of the market.

In the previous sections the MCA concluded that Maltacom holds SMP in the market for wholesale unbundled access to the local loop. Therefore, in order to bring the benefits of competition to the consumers, it is essential that competing operators can gain access to Maltacom's infrastructure. This implies that remedies should be imposed in order to provide alternative operators with sufficient access to inputs, so that all new operators may start offering services over the existing infrastructure.

The MCA believes that the remedies being imposed herein must ensure that Maltacom offers OAOs sufficient access to its wholesale inputs, which access would not be offered if Maltacom had to be left unregulated.

4.5.1 Access

In accordance with Article 21 of the ECNSR, Maltacom is to continue to offer access to its wholesale unbundled access to the local loop service (including shared access) and associated facilities, and to entertain reasonable requests for access to service variants. Coupled with this, Maltacom is to give OAOs access to specified network elements and, or associated facilities, where such access is required for the purpose of the provision of wholesale access to the local loop. Maltacom is therefore required to negotiate in good faith with undertakings requesting these access services.

The MCA believes that Maltacom ought to provide information relevant to the access obligation to OAOs. Therefore the need arises to oblige Maltacom to provide access to technical interfaces, protocols, or other key technologies indispensable for the interoperability of services, and to operational support systems or similar software necessary to ensure fair competition in the provision of services.

The provision of Service Level Agreements by Maltacom to OAOs is especially considered indispensable with respect to the provision of access to wholesale access to the local loops, as it provides OAOs with certainty as to the supply and repair of the wholesale input and hence allows them to compete on a downstream level.

Maltacom must provide all the above-mentioned access-related remedies in a fair, timely and reasonable fashion. The obligations of non-discrimination and transparency are considered imperative if OAOs are to effectively compete with Maltacom. In order for the access obligation to be fully effective, the MCA deems that the provision of access by Maltacom to these wholesale products also ought to be cost-oriented and accompanied by accounting separation and non-discrimination obligations.

4.5.2 Non-discrimination

A cardinal remedy aimed at defeating the competition problems resulting from vertical foreclosure is that of non-discrimination in the provision of access and, or interconnection. In accordance with Regulation 19 of the ECNSR, Maltacom, as the vertically integrated provider, is obliged to:

- a) apply equivalent conditions in equivalent circumstances to other undertakings providing equivalent services, and
- b) provide services and information to others under the same conditions (including timescales, on a basis and of a quality) equivalent to that which it provides to its own services, or those of its subsidiaries or partners.

The MCA believes that the obligation of non-discrimination is essential for the uptake of wholesale products by OAOs during the lifespan of this review. Maltacom also makes use of wholesale access to the local loop services provided internally to be able to offer downstream services. In view of this, the imposition of a non-discrimination remedy obliging Maltacom to offer access to its wholesale product to OAOs under the same conditions as it provides to its retail and downstream providers is necessary.

In this light, the MCA is of the preliminary view that the access obligation delineated above needs to be supplemented with an obligation of non-discrimination in the provision of access. The MCA believes that such a non-discrimination obligation shall tackle price parameters as well as target non-price parameters, such as the withholding of information, delaying tactics, undue requirements, low or discriminatory quality, strategic design of products, and discriminatory use of information, which would disadvantage competing providers and in turn consumers.

In order to ensure compliance with and monitor the non-discrimination obligation set on Maltacom, the MCA considers it is necessary to apply supplementary obligations of transparency and accounting separation.

4.5.3 Transparency

Regulation 18(2) of the ECNSR states that where an operator with SMP has obligations of non-discrimination, the MCA may require it to publish a reference offer which shall be sufficiently unbundled to ensure that undertakings are not required to pay for facilities which are not necessary for the services requested, giving a description of the relevant offerings broken down into components according to market needs, and the associated terms and conditions including prices. In such instances, the MCA is able to impose changes to reference offers to give effect to the obligations imposed under the Act. The MCA may also specify the precise information to be made available, the level of detail required and the manner of publication.

The obligation of transparency, catered for by Regulation 18 of the ECNSR, is intended to ensure the provision of sufficient information and clear processes required for access to the mandated products by the operator with SMP.

Currently Maltacom is meeting its obligation to publish pricing and terms and conditions related to wholesale unbundled access to the local loop in its Reference Unbundling Offer (RUO)⁵. By virtue of the obligation of transparency which the MCA is proposing to impose on Maltacom, the said operator will be obliged to continue publishing (and update where necessary) reference offers related to the various wholesale unbundled access to the local loop services. Such offers are to be sufficiently unbundled, include pricing, terms and conditions and service level agreements, as established in the above access obligations and as may be directed by the MCA according to law. The MCA reserves the right to specify the level of detail to be published with respect to such information from time to time.

In order to better overcome the competition problems discussed above, the MCA is of the opinion that Maltacom should continue to provide and publish appropriate manuals, order forms and processes for services, the details of which are to be determined on a case-by-case basis. The publication of other information may be requested by the MCA from time to time. Furthermore, the MCA is of the opinion that Maltacom should provide detailed billing at the wholesale level.

⁵ Link to documents on the Maltacom website: <http://www.maltacom.com/> (registration required)

The need to impose transparency obligations is felt in view of the need to ensure that Maltacom provides other operators with effective access to its wholesale inputs.

4.5.4 Price control and cost accounting

As indicated in this document the MCA has found Maltacom to have SMP in the wholesale access to the local loop market. Due to the considerable entry barriers identified in this market, it is not envisaged that Maltacom's SMP status in the said wholesale markets would change within the timeframe of this review. In this light it is believed that unless proper restraint on wholesale prices is put on Maltacom by means of regulation, the exertion of a market squeeze by Maltacom to foreclose the downstream market is likely.

Regulation 22 of the ECNSR authorises the imposition on the undertaking with SMP (in this case Maltacom) of obligations relating to cost recovery and price controls, including obligations for cost orientation of prices and obligations concerning cost accounting systems, for the provision of specific types of interconnection and, or access.

Such intervention is in itself deemed instrumental in supporting competition in the retail market to the benefit of end-users, whilst at the same time supporting the obligations of non-discrimination and transparency at a wholesale level.

Price Control

In applying obligations relating to cost recovery or pricing, the MCA is obliged to ensure that any cost recovery mechanism or pricing methodology that is mandated serves to promote efficiency and sustainable competition as well as maximise consumer benefits.⁶

In view of the risk of excessive pricing being applied by Maltacom in the wholesale market under review, the MCA is of the opinion that cost orientation would prove efficient in curbing such possible abuses of dominance. By mandating that wholesale access to the local loop provided by Maltacom must be cost oriented, the MCA believes that it would be in a position to ensure fair and efficient access to Maltacom's network and services.

In implementing this measure, the MCA will pay careful attention to those costs which are shared amongst a number of products, as well as to ensuring that only efficiently incurred costs will feature in Maltacom's charges.

Cost Accounting

The MCA believes that, in order to effectively promote competition and curb possible abuse of dominance in the wholesale markets under review the imposition of a cost accounting system will be necessary to support cost orientation. It is therefore necessary to impose such obligation as a further remedy on Maltacom. The MCA does not consider that the imposition of a cost accounting obligation would constitute an unreasonable burden on Maltacom.

Such cost accounting system will provide the MCA with detailed information regarding Maltacom's product costs and ensure that fair, objective and transparent methodologies are followed by the operator in allocating costs to the identified regulated products. Information from such system will be used by the MCA to complement the application of other regulatory measures such as transparency and non-discrimination.

⁶ ECNSR, Reg. 22(2)

Maltacom is currently already obliged to support such a system by virtue of MCA decisions⁷ which have been in place for some time. These decisions established that operators having a Dominant Market Position should implement cost-based accounting systems using a Fully Allocated Cost accounting methodology using a historic cost base. This decision will remain in force until such time as the MCA issues further guidelines.

4.5.5 Accounting separation

Accounting separation is instrumental in ensuring that the undertaking with SMP is not price discriminating between its retail arm and its competitors when providing access at a wholesale level. By evidencing the wholesale and internal transfer prices of the products and services of the undertaking with SMP, accounting separation also supports the obligation of transparency discussed above.

The obligation of accounting separation is also important in the disclosure of possible market failures such as cross-subsidisation and the application of margin squeeze by an undertaking with SMP.

In view of the above and of the fact that the MCA is herein maintaining the obligations of non-discrimination and transparency on Maltacom, the MCA feels that the imposition of an accounting separation obligation on the same Maltacom is appropriate since it is justifiable and based upon the competition problems identified above.

Currently Maltacom is subject to the accounting separation obligation described in the MCA decision on Accounting Separation⁸. This level of obligation shall be maintained until further consultation is deemed necessary.

04.6 Summary of proposed obligations

Given the position of dominance held by Maltacom in the market for wholesale unbundled access to the local loop, the MCA proposes to impose on Maltacom the following wholesale obligations:

- Access to wholesale unbundled local loops (including shared access) and other facilities;
- Non-discrimination;
- Transparency;
- Price control and cost accounting; and
- Accounting separation.

⁷ Implementation of Cost Based Accounting Systems for the Telecommunications Sector - Report on Consultation and Decision - July 2002.

Dominant Market Position in the Leased Lines Market - Determination of DMP - June 2003

⁸ Accounting Separation and Publication of Financial Information for Telecommunications Operators - Report on Consultation and Decision of October 2002, as amended in July 2003

Chapter 5 Submitting Comments

All comments are welcome; however it would make the task of analysing responses easier if comments were referenced to the relevant question numbers from this document. The consultation period will run from 27th November 2006 to 29th December 2006, during which the MCA welcomes written comments on any of the issues raised in this paper.

The MCA appreciates that many of the issues raised in this paper may require respondents to provide confidential information if their comments are to be meaningful. Respondents are requested to clearly identify confidential material and if possible to include it in a separate annex to the response.

Having analysed and considered the comments received, the MCA will review this analysis and publish a report on the consultation which will inter alia summarise the responses to the consultation.

In order to promote further openness and transparency the MCA will publish the names of all respondents. Moreover, in the interests of transparency, all representations will be published, except where respondents indicate that a response, or part of it, is confidential.⁹ The MCA will take steps to protect the confidentiality of all such material from the moment that it is received at MCA's offices. In the interests of transparency, respondents should avoid applying confidential markings wherever possible.

All responses must arrive at the MCA no later than 16.00hrs of the 29th December 2006. Submission received after this time will not be taken into account.

All comments should be made in writing and where possible sent by email to info@mca.org.mt. However, copies may also be posted or faxed to the address below. If any parties are unable to respond in one of these ways, they should discuss alternatives with:

Chief Policy and Planning

Malta Communications Authority
Valletta Waterfront,
Pinto Warf,
Valletta VLT 01,
Malta, Europe

Tel: +356 21 336840
Fax: +356 21 336846

⁹ In accordance with the MCA's confidentiality guidelines and procedures.