



Consultation paper on telecommunications market reviews and notification of the proposed determinations

June 2011

Contents

1.	Foreword	3
2.	Executive summary	4
3.	Introduction	6
3.1	Background	6
3.2	Approach	7
3.3	Next Steps	12
4.	Retail fixed telecommunications markets	13
4.1	Introduction	13
4.2	Market definition and competition assessment	13
4.2.1	Retail fixed access	13
4.2.2	Retail voice calls from a fixed location	14
4.2.3	Retail broadband	16
4.2.4	Dedicated capacity (retail leased lines)	16
4.2.5	Summary and conclusion on market definitions and competition assessment of retail fixed markets	17
5.	Remedies in the retail fixed markets	19
5.1	Approach to remedies	19
5.2	Proposed remedies	21
5.2.1	Access	21
5.2.2	Transparency	22
5.2.3	Non-discrimination	22
5.2.4	Accounting separation	22
5.2.5	Cost accounting and price controls	23
6.	Wholesale fixed networks and services	24
6.2	Introduction	24
6.3	Market definition and competition assessment	24

6.3.1	Call origination, transit and termination.....	24
6.3.2	Call origination	25
6.3.3	Transit	25
6.3.4	Termination	26
6.3.5	Wholesale broadband access.....	26
6.3.6	Dedicated capacity (leased lines).....	28
6.3.7	Summary conclusions on market definition and competition assessment of wholesale fixed markets.....	30
6.4	Remedies in the wholesale fixed markets.....	30
6.4.1	Access.....	31
6.4.2	Non-discrimination.....	31
6.4.3	Transparency.....	31
6.4.4	Accounting separation.....	32
6.4.5	Cost accounting and price controls.....	33
7.	Mobile Communications.....	34
7.1	Retail mobile communications	34
7.2	Wholesale mobile.....	34
7.3	Market definition and competition assessment.....	34
7.3.1	Access and origination	34
7.3.2	Call termination.....	35
7.4	Remedies in the mobile markets	36
7.5	Conclusions	37
8.	Questions to consider	38
9.	Next steps.....	39
10.	Glossary.....	40

1. Foreword

This consultation paper constitutes a notification and invites views on proposals for relevant telecommunications markets, significant market power determinations and proposed additional obligations to remedy potential competition issues. The Communications Commission is inviting written responses, by Friday 29th July 2011. Responses will be fully considered before the Commission publishes its final Decision which will constitute the market power determinations and remedies.

This consultation can be viewed online at www.iomcc.im.

Following the closing date all responses will be considered. We will publish a summary of responses and a final Decision Notice which will set out the final determinations and directions to comply with additional obligations (or remedies). The Decision Notice will come into immediate effect on the date of publication.

Please send your comments by Friday, 29 July, 2011 to:

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With thanks for your cooperation

Hon Adrian Earnshaw MHK

Chairman

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2. Executive summary

This report is the launch of a consultation on the preliminary findings of reviews designed to identify and analyse competitive conditions in the telecommunications markets. Should any operator be found to have Significant Market Power (SMP), there is a case for regulation designed to address actual and potential competition problems.

While other jurisdictions have been carrying out market reviews over a number of years, this is a first round review of all telecommunications markets in the Isle of Man, and if the preliminary SMP findings are accepted, it will result in the introduction of a new set of regulatory remedies. Provisions for placing additional obligations on operators with significant market power are contained in licences issued under section 5 of the Telecommunications Act 1984 (of Tynwald).

Our approach draws on best practice from the European Union, and adapts this to recognise the specificity of the Isle of Man. We believe that competition in the telecommunications markets has many advantages, but so too does the continuing investment which is needed to ensure that our telecoms infrastructure and services meet the needs of Isle of Man businesses and consumers. Our reviews identified retail telecommunications markets and their corresponding wholesale markets. The markets identified are to do with access to fixed and mobile networks, and to services provided over fixed and mobile networks. We have found potential competition problems in the retail fixed markets, wholesale fixed markets, and mobile markets, and propose regulatory remedies appropriate to each market.

In considering regulatory remedies in the fixed markets, our view is that the key competition concern to be addressed is the need for well-functioning wholesale products, because competition in the retail markets depends on this. The remedies proposed are based on the principle that a competing licensed operator should be able to replicate Manx Telecom's retail offers. A competing operator will be able to request wholesale products from Manx Telecom, and this offers the opportunity for competing operators to introduce much greater innovation in the retail products they can supply to businesses and consumers. Requests must be made on the basis of a serious business proposition – Manx Telecom will not be obliged to develop a series of wholesale products for which there is no likely market.

As a proposed SMP operator, other remedies will address how Manx Telecom is expected to conduct itself in the market, and this is to do with not discriminating in the services it offers, in providing good quality information about its products, in transparency in its dealings with other operators, and in ensuring that its retail operation does not benefit unduly compared with other operators' retail arms.

In considering regulatory remedies in the mobile markets, we are addressing the need for both mobile operators, Manx Telecom Limited and Cable & Wireless Isle of Man Limited (trading as

Sure), to ensure that their termination rates continue to decrease, and that they do not use their competitive advantage to harm operators in other retail markets.

We expect that the conclusion of this review process will be regulation which will support a well-functioning telecommunications market which can deliver high quality services.

3. Introduction

3.1 Background

In 2010, the Communications Commission published its Response to Consultation on proposals for a new framework for communications regulation.¹ Having considered all responses, the Commission's recommendation was that the Isle of Man should create an approach to regulation which is specific to the Isle of Man, and which both ensures competition in the provision of services, and ensures continuing infrastructure investment. The regulatory approach should be appropriate to the size of the jurisdiction, and should focus on the Isle of Man's priorities. The Communications Commission recognised that the underlying communications legislation requires updating.

This report addresses some of the objectives established in the New Framework Consultation by reviewing the telecommunications markets in the Isle of Man. The main purpose of a market review is to identify the competitive conditions prevailing in a market by assessing systematically the competitive constraints which are faced by undertakings (licensees) in the market. A market review commences by defining a market, which is then analysed to assess the degree of effective competition. Should any undertaking be found to have Significant Market Power (SMP), defined as the ability to behave independently of competitors, suppliers and ultimately businesses and consumers in that market, then there is a case for regulation designed to address any actual or potential abuse of dominance. Provisions for conducting market reviews and placing additional obligations on operators with significant market power are contained in licences issued under section 5 of the Telecommunications Act 1984 (of Tynwald).

In order to conduct the analysis presented in this review, we have sought input from licensed telecommunications operators in the Isle of Man². We carried out an introductory workshop, explaining the objectives of the review, and followed up with some individual meetings. We requested quantitative and qualitative data which was designed to provide information about how the markets had developed, and also operators' views about the future outlook. We appreciate the constructive and timely responses we have had from operators who have been involved and positively engaged with this process, and believe it establishes a solid basis for future engagement.

¹ Response to Consultation on Proposals for a New Framework for Communications Regulation, Communications Commission, August 2010

² Manx Telecom Limited (MT), Cable & Wireless Isle of Man Limited (C&WIOM), Domicilium (IOM) Limited, Wi-Manx Limited, Manx Computer Bureau Limited (MCB), e-Ilan Communications Limited and Bluewave Communications Limited.

We have also interviewed some key customers in order to learn about their experience of purchasing telecommunications services. Finally, we have drawn on the experience of other European Regulators who have been reviewing markets for a number of years.

3.2 Approach

We have adapted the methodology recommended by the European Commission (EC) for defining markets. While the Communications Commission is not legally obliged to follow EC recommendations, this constitutes a well-established process and is considered as best practice. The market definition methodology is set out by the EC³ in its SMP Guidelines, and this review has adapted this methodology to the particular circumstances of the Isle of Man.

Our approach, then, is to treat the EC guidelines as best practice in terms of their methodology, and to implement them in a pragmatic way which recognises the specificity of the Isle of Man. We have also taken into account work carried out by European National Regulatory Authorities (NRAs) since the publication of the Guidelines, particularly where the methodology has been developed, and where the EC has engaged in dialogue with NRAs about the implementation of the methodology.

The EC's current recommendation⁴ is that seven markets should be considered as susceptible to *ex ante* regulation:

1. Access to PSTN for residential and non-residential users
2. Call origination on fixed networks
3. Call termination on fixed networks
4. Wholesale (physical) network infrastructure access
5. Wholesale broadband access
6. Terminating segments of leased lines
7. Voice call termination on mobile networks

However, because market reviews have not previously been carried out in the Isle of Man, we have considered a broader starting point, incorporating some of the markets previously identified by the EC in its original Recommendation, as a means of ensuring a full

³ Commission guidelines on market analysis and the assessment of significant market power under the Community regulatory framework for electronic communications networks and services (2002/C 165/03)

⁴ European Commission Recommendation of 17 December 2007 on relevant product and service markets within the electronic communications sector susceptible to *ex ante* regulation in accordance with Directive 2002/21/EC of the European Parliament and of the Council on a common regulatory framework for electronic communications networks and services OJ L 344 (the Recommendation).

understanding of the dynamics of the market. We have grouped markets together under the following headings:

- Retail fixed network and services, which includes retail access, retail calls, retail broadband and retail leased lines
- Wholesale fixed network and services, which includes the wholesale markets associated with the retail markets identified above
- Mobile communications

The approach to the market reviews has also taken into account the provisions contained in “Additional Obligations on Operators with Significant Market Power”, part of the licences issued under Section 5 of the Telecommunications Act 1984 (of) Tynwald, which outlines the procedure to be followed in coming to a potential determination of SMP⁵.

The market definition procedures are designed to identify in a systematic way the competitive constraints encountered by providers of electronic communication networks and services. A relevant product market comprises all products or services that are sufficiently interchangeable or substitutable, not only in terms of the objective characteristics of those products, their prices or their intended use, but also in terms of the conditions of competition and/or the structure of supply and demand for the product in question. In essence, this leads to a definition of the market’s boundaries.

Market definition is about identifying the boundaries of a market for the purpose of correctly applying *ex ante* regulation⁶. The process involves considering constraints arising on both the demand and supply sides of a market (and their interaction). The constraints are those which would apply to a so-called hypothetical monopolist, such that the hypothetical monopolist would be constrained in price setting behaviour. Hence, critical to the market definition process is the degree of substitution identified on the demand and supply-sides of the market.

If there is a lack of current or potential substitutability on either the demand or supply-side of a market, the overall scope of the market will need to be more tightly defined. If substitutability or its potential exists, a broader definition may be appropriate⁷. The competitive status of each relevant market can then be considered.

⁵ Part 6 of Manx Telecom Limited’s licence, part 4 of the licences held by Cable and Wireless Isle of Man Limited, Domicilium (IOM) Limited, Wi-Manx Limited, Manx Computer Bureau Limited and Bluewave Communications Limited and Part 3 of the e-Ilan Communications Limited’s licence.

⁶ *Ex ante* regulation is the application of regulation before an abuse of power has necessarily occurred. The reasoning behind its application is that finding that an operator has SMP means that the operator is likely to have the incentive and motivation to behave in a way which exploits its market power to the detriment of competitors and ultimately to consumers. *Ex ante* regulation can be contrasted with *ex post* regulation, which investigates an incident which has already happened.

⁷ A method for identifying market boundaries is known as the hypothetical monopolist test (also known as the SSNIP test, Small but Significant Non-transitory Increase in Price test). This test assesses whether a hypothetical monopolist is able to increase price profitably for a product or service unilaterally, without affecting demand for its product.

European guidelines also require the geographic coverage of markets to be considered. A relevant geographic market comprises the area in which the undertakings concerned are involved in the supply and demand of products and/or services, in which the conditions of competition are sufficiently homogeneous and which can be distinguished from neighbouring areas because the conditions of competition are appreciably different in those areas.

The market review therefore establishes the rationale for regulation in a market, and also the form which that regulation will take.

When a market has been defined, the next step is to assess the level of competition in that market. The purpose of the competition analysis is to consider whether any operator has Significant Market Power (SMP), and the analysis should look forward 2-3 years, taking into account foreseeable technical and economic developments. If there is no SMP, the market is effectively competitive and does not require *ex ante* regulation. If there is no SMP any existing *ex ante* regulation should be removed, and no further *ex ante* regulation should be imposed (regulations such as universal service obligation regulations and other licence conditions will remain). If there is SMP, then the market is not effectively competitive and regulation should be imposed, at either the wholesale or the retail level, to counteract the potential negative effects of the competition problems that can be caused by the SMP operator. As findings of collective dominance or SMP are relatively unusual, the EU Framework Directive itself (in Annex II), in addition to the Guidelines, gives a list of criteria to be used in assessing it⁸.

Significant Market Power is equivalent to the concept of dominance under competition law. If an undertaking is dominant, it can decide on prices and levels of output itself. In a normal competitive market, a firm has to concern itself about the possible reactions of competitors: if it raises prices, competitors may draw away enough customers to make the price increase unprofitable. Similarly, a firm in a competitive market must concern itself about the reaction of customers if it raises prices: they may just switch to other suppliers. A dominant firm, on the other hand, does not have to worry about this, because its competitors have insufficient power to attract away a significant proportion of its customers, and its customers have little or no choice but to do business with it. Thus the dominant firm can determine its pricing and output strategy independently.

A dominant firm will normally have a large market share. In the EC's *SMP Guidelines*, it is clear that although a high market share alone is not sufficient to establish the possession of significant market power, it is unlikely that a firm will be dominant without a large market share. The *SMP Guidelines* (see paragraph 75) note that: *"...very large market shares – in excess of 50% - are in themselves, save in exceptional circumstances, evidence of the existence of a dominant position"*

It is important to consider any changes to market shares over time, as this will indicate trends in the market and will contribute to an assessment of whether or not the market may tend

⁸ http://ec.europa.eu/information_society/policy/ecomm/doc/140framework.pdf

towards effective competition over the period of this review. The data we requested from operators as input to the review was provided on a quarterly basis for the last two years, and this will contribute to an assessment of any changes in the market structure over that time.

However, market share is not the only criterion: a high market share simply makes it possible that the operator concerned *might* be in a dominant position. Regulators must examine a wide range of characteristics of the market before coming to a conclusion as to the existence of significant market power. The EC lists (non-exhaustive) criteria which can also be used to measure the power of an undertaking to behave to an appreciable extent independently of its competitors, customers and consumers. The depth of analysis to be carried out is related to the market share finding – for example, a 100% market share which has been stable over time, and where it does not appear to be likely that this will change over the next 1-2 years would not require the same level of detailed analysis of potential mitigating factors as a situation where the market share is 50%.

In general, the approach to competition assessment involves a high level analysis of barriers to entry and expansion. In telecommunications markets, barriers to entry are often associated with large-scale investment in infrastructure over a long time, with consequent sunk costs, and could also entail an operator's need to achieve economies of scale, scope and density. Another barrier to entry could arise where an SMP operator is vertically-integrated; that is where the operator offers a wholesale and a retail service. In this case, an entrant to the market may find it difficult to compete if the SMP operator's retail arm benefits from preferential treatment from its parent company, particularly if the market entrant is dependent on purchasing a wholesale input from the SMP operator. A barrier to entry could also arise because of the existence of a scarce resource, such as spectrum. The competition assessment would take into account other factors which could dilute market power, such as countervailing buyer power, where a purchaser buys enough of the operator's services to be able to influence the pricing and market behaviour of the operator.

The conclusion of the competition assessment for each market is a preliminary view as to whether any undertaking has Significant Market Power in the defined market.

Should an undertaking be found to have SMP, we need to consider how best to address this. Some of the areas to be considered are already present in the Telecommunications Act licences. In particular we need to consider whether there are sufficient measures under the Fair Trading Act 1996 of Tynwald or the Fair Trading condition (absent a determination of Significant Market Power) of the Telecommunications Act licences to reduce or remove barriers to entry or to restore effective competition.

While the types of remedy which have been imposed in other jurisdictions are a useful guide, we have the flexibility, if necessary, to develop a specific set of remedies for the circumstances in the Isle of Man. Given the strategic objectives set out in the New Regulatory Framework it is essential that the approach to remedies takes into account the need to ensure that investment

in infrastructure continues, and that telecommunications services available to business and residential customers are of a high quality.

The EU approach to remedies generally considers the deployment of a set of regulatory tools to address structural factors such as enabling wholesale access to an incumbent's network, and behavioural recommendations that establish how the SMP operator is expected to conduct itself in the market. The lightest remedies are those concerning transparency and non-discrimination, which prescribe how an SMP operator is expected to behave in the market. A transparency obligation could include, for example, obligations to publish prices and other terms and conditions associated with services. It could require the SMP operator to publish a Reference Offer for specific products, and to publish an outline Service Level Agreement (SLA) defining its relationship with an Other Licensed Operator (OLO). It could put in place a change mechanism for how the SMP operator will make changes, and will notify its customers.

At present, Manx Telecom's licence obliges it to publish information about access to, and use of, Publicly Available Telephone Services with respect to services provided to end-users.

A non-discrimination obligation generally has two aspects. First of all, it obliges the SMP operator to treat all OLOs in an equivalent manner – it cannot discriminate between them. Secondly, it obliges the SMP operator to treat OLOs in the same way as it treats its own downstream (or retail) arm. This means, for example, that where an OLO is buying a wholesale input so that it can offer a retail service, it should not be disadvantaged compared with the SMP operator's own retail operation. The onus is on the SMP operator to show that its behaviour is not discriminatory.

Manx Telecom's current obligation refers to it avoiding the application of dissimilar conditions to equivalent transactions with other trading parties (paragraph 21.2.3 of the Manx Telecom licence), which addresses the first type of discrimination (that between OLOs) but not the second (that between Manx Telecom's downstream operation and OLOs).

Should the transparency and non-discrimination obligations be insufficient on their own, the Regulator may choose to impose an access remedy, which allows the OLO to have certain types of wholesale access to the SMP operator's infrastructure. In some jurisdictions, Regulators have mandated specific types of wholesale product which are to be offered by the SMP operator, and often support this by specifying on what terms the products will be made available. The overall approach to access is generally that it should be based on a reasonable request. In other words, an OLO cannot expect an SMP operator to develop a range of wholesale products and services without there being a reasonably proven market for them. This balances the rights of the SMP operator to develop, operate and make a reasonable return on its network, and the rights of the OLO to request access on a reasonable basis.

Manx Telecom's current licence requires it to offer access, and to make certain types of information available about the terms and conditions under which it offers access (section 43).

The most stringent obligations relate to accounting separation, cost accounting, and price controls. Generally, accounting remedies are imposed in order to ensure that the SMP operator is not discriminating against OLOs, for example by cross-subsidising some products at the expense of others, and is not leveraging its power in one market into another. Price controls can be established in the retail and wholesale markets, and usually limit the price which the SMP operator can charge. Price controls are usually put in place to address the potential for the SMP operator to impose margin squeeze⁹, or to cross-subsidise. There are a number of types of price control, including 'retail-minus', where the wholesale price is set in relation to the SMP operator's retail price, 'cost-plus', where a retail price is based on an agreed margin on top of the cost of providing a wholesale input, or where the retail price is linked to an increase in the consumer price index or retail price index.

Under the terms of the current telecommunications licences, where it has made a determination that an operator has SMP, the Commission can from time to time specify additional obligations by direction in respect of a relevant network (Network Access Pricing conditions). For example, if the Commission considers from the market analysis that there is a risk that the SMP operator might sustain prices at an excessively high level or apply a price squeeze to the detriment of end users, the Commission can impose price controls. Because this is a first round review of all telecommunications markets in the Isle of Man, it is essential that the implementation of remedies is monitored and evaluated in terms of effectiveness. Our assessment of the markets must take into account changes in competitive conditions as markets develop, and regulation must respond quickly to change. The remedies which are outlined in this consultation on a preliminary basis are designed to address key competition problems in the markets. However, should the eventual measures prove to be insufficient, we would expect to initiate further action to remedy this.

3.3 Next Steps

This document constitutes the formal notification of the Communications Commission's proposals to issue market power designations as required in condition 42.7 of the Manx Telecom licence and condition 27.7 of the Cable & Wireless Isle of Man licence. It also sets out the proposed remedies or obligations that we propose to apply, by direction. As this document is also a public consultation paper we have included specific questions throughout the document, but welcome feedback in addition to the issues highlighted by Friday 29 July 2011 which will inform the final Decision and determinations.

Following the closing date, all responses will be considered. We will publish a summary of responses and a final Decision Notice which will set out the final determinations and directions to comply with additional obligations (or remedies). The Decision Notice will come into immediate effect on the date of publication.

⁹ A margin (price) squeeze arises when a dominant operator, which provides a wholesale input on which other operators rely in order to compete at the retail level, prices its upstream (wholesale) services and downstream (retail) services in such a way as to prevent others from competing with it at the downstream level.

4. Retail fixed telecommunications markets

4.1 Introduction

As market reviews have not been carried out in the Isle of Man up until now, we have taken a broad view of the retail fixed markets. The retail markets are concerned with business and residential customers buying communications services, and would include the purchase of voice calls, broadband, dedicated capacity (such as leased lines), and access to the network over which these services are provided. The retail markets we are considering are:

- Retail fixed access
- Retail calls from a fixed location
- Retail broadband
- Retail leased lines

For each market, we consider how best to define the market, and carry out a competition assessment. We then consider what regulatory remedies may be appropriate to address any competition problems identified in the retail fixed markets.

4.2 Market definition and competition assessment

4.2.1 Retail fixed access

The retail access market is concerned with the provision of a physical connection from a fixed location to the public telephone network. This could include homes and offices, and the connection could be used to access a range of retail services, such as voice calls and broadband services. The retail services may be provided by the same operator who provides the connection, or may be provided by a different operator purchasing a wholesale input. Fixed line connections are provided over circuits which may be copper or fibre, and in some countries may also be provided by wireless technologies such as Fixed Wireless Access (FWA), or by cable TV networks.

In the Isle of Man, there were 48,500 PSTN access lines at the end of Q1 2011, and an additional 6,600 ISDN lines. There are 30 FWA access lines, and 3 fibre access lines supplied by an OLO. The number of PSTN access lines has been decreasing slowly over the last 2 years, although the associated revenue has remained stable. ISDN access has declined slightly, and FWA access has increased slightly over the last two years.

Manx Telecom is the only operator to provide PSTN and ISDN access. WiManx provides FWA and fibre access.

We propose that the retail access market includes access provided over PSTN, ISDN, FWA and fibre, because a customer would be likely to consider these access products to be good substitutes. Manx Telecom's market share is above 99%, and has been so for the last two years. Barriers to entry in the retail access market are high and persistent, particularly those associated with the need to replicate an access network, and the sunk costs involved in establishing an access network, and with the exception of very limited FWA supply, no other operator has developed an access network. Given the costs associated with entering the retail access market, and the absence of a wholesale variant, we do not believe that another operator is likely to build alternative infrastructure in the next few years. We also do not consider that there is sufficiency of measures under the Fair Trading Act 1996 of Tynwald or the Fair Trading condition (absent a determination of Significant Market Power) of the Telecommunications Act licence to reduce or remove the barriers to entry or to restore effective competition.

We have considered the geographic scope of the retail access market. Operators offer uniform pricing, and market their services in a uniform manner, and would generally be able to switch to supply different parts of the island in response to a price increase. While there are usually variations in conditions of competition between geographic areas, we do not consider that these are sufficient to constitute separately defined markets, and so the geographic scope of the market is the Isle of Man.

Our preliminary view is that Manx Telecom has SMP in the market for retail fixed access.

4.2.2 Retail voice calls from a fixed location

While many customers choose to buy a telephone package which includes access and calls, some may choose to buy access and calls separately. The purchase of calls from an alternative provider to the provider of access could apply to all calls, or to particular categories, such as international calls. Across the EU, wholesale regulation such as that imposing Carrier Pre-Selection (CPS) and Wholesale Line Rental (WLR) has led to widespread entry of alternative operators into the retail calls market, and the very low barriers to entry means that the EC now considers the market for retail fixed calls not to be susceptible to *ex ante* regulation.

In the Isle of Man, retail voice calls are provided by Manx Telecom over its fixed network, and by C&WIOM using indirect access (IDA) over Manx Telecom's network. C&WIOM's retail call offer does not include on-island calls to fixed lines – it is limited to calls off-island to both fixed lines and mobiles, and calls to Isle of Man mobiles. Customers using C&WIOM's fixed calls services need to have a line supplied by Manx Telecom. WiManx offers a fixed voice service to its broadband customers, who can make unlimited calls to IOM and UK landlines for a fixed monthly fee, with rates available for calls to mobiles and international calls. The WiManx service uses VoIP (Voice over Internet Protocol).

We have considered whether there are separate markets for domestic calls and international calls. There is limited demand-side and, currently, limited supply-side substitution. However, there is no barrier to an Internet Service Provider operator offering domestic and international calls using VOIP, and there is no licensing barrier to C&WIOM offering fixed call services, so on balance, we propose that the market includes domestic and international calls.

We have considered whether fixed calls should be in the same market as mobile calls. While fixed and mobile will be substitutes for some people, other European Regulators (with the exception of Austria) have found that fixed calls and mobile calls are not in the same market, primarily due to functional differences, pricing differentials, and the use of mobile as a complementary service to fixed. We propose that the same conclusion can be drawn in the Isle of Man, and that retail mobile calls will not be in the same market as retail fixed calls.

Finally, we have considered whether there should be separate markets for business and residential customers. While there are some differences in services available to business and residential users, the line between the two is blurred, and is probably most distinct in separating users who have a private branch exchange (PBX – a telephone exchange that serves a particular business or office) from those who do not. Operators may market differently to business and residential customers, but all operators offering voice call services address both types of user, and could switch supply from one to the other readily. We propose therefore that the market includes business and residential customers.

Our preliminary finding is therefore that there is a market for fixed retail calls, and the market includes all calls from a fixed line, including calls to Isle of Man mobiles and landlines, and calls off-island to fixed and mobile numbers. The market also includes VoIP calls. We have considered the geographic scope of the retail fixed calls market. Operators offer uniform pricing, and market their services in a uniform manner, and would generally be able to switch to supply different parts of the island in response to a price increase. While there are usually variations in conditions of competition between geographic areas, we do not consider that these are sufficient to constitute separately defined markets, and so the geographic scope of the market is the Isle of Man.

The overall market for calls from a fixed location has been declining over the last two years, and this is the case across all categories of fixed call. In this market, Manx Telecom has a market share of over 90%, calculated on the basis of call minutes. In the calls market, we have considered whether the current indirect access product offered by C&WIOM, in addition to the VoIP option offered by WiManx, are sufficient to constrain Manx Telecom's ability to behave independently of competitors and ultimately customers. Our view is that the alternative supply of calls makes up a very small part of the market, and that supply by C&WIOM and WiManx is not sufficient to act as a constraint on Manx Telecom at this time. We also do not consider that there is sufficiency of measures under the Fair Trading Act 1996 of Tynwald or the Fair Trading condition (absent a determination of Significant Market Power) of the Telecommunications Act licence to reduce or remove the barriers to entry or to restore effective competition.

Our preliminary conclusion is that Manx Telecom has SMP in the market for retail fixed calls.

4.2.3 Retail broadband

Fixed retail broadband can be provided over any fixed network. Once a customer has an access line, they can buy broadband provision, either from the operator who provides the access line, or from an alternative provider. A supplier of fixed retail broadband needs to either own, or be able to obtain wholesale access to, a transmission channel to its customer. Responses to our request for data indicated that retail broadband is supplied in the Isle of Man by Manx Telecom, C&WIOM, WiManx, MCB and Domicilium. Bluewave Communications has a licence which enables them to provide retail broadband but due to prior commitments they were unable to participate in the market review workshop and did not respond to the data request. All of the operators that responded stated that they offer services on Manx Telecom's ADSL network. In terms of number of subscribers, the retail broadband market grew by 8% in 2009, and 7.5% in 2010. Competition in retail broadband is primarily based on price, as the wholesale product offered by Manx Telecom does not enable significant differentiation on quality of service or other technical features. Over the last year, there has been a general upgrade to services with speeds of up to 16Mb/s, and by the end of 2010, almost 85% of customers were on this speed.

We have considered the geographic scope of the retail fixed broadband market. Operators offer uniform pricing, and market their services in a uniform manner, and would generally be able to switch to supply different parts of the island in response to a price increase. While there are usually variations in conditions of competition between geographic areas, we do not consider that these are sufficient to constitute separately defined markets, and so the geographic scope of the market is the Isle of Man.

Manx Telecom's share of the retail broadband market has declined slightly over the last two years, from 87% in Q1 2009 to 85% at end Q4 2010. While Manx Telecom's market share remains very high, barriers to entry to the retail broadband market are reduced due to the availability of a wholesale input, and OLOs can, and have, entered the market.

Our preliminary conclusion is that Manx Telecom has SMP in the market for retail broadband. We do not consider that there is sufficiency of measures under the Fair Trading Act 1996 of Tynwald or the Fair Trading condition (absent a determination of Significant Market Power) of the Telecommunications Act licence to reduce or remove the barriers to entry or to restore effective competition. However, we propose that it is appropriate to consider regulatory remedies in the wholesale market for broadband access, and this is discussed further below. In the retail market, regulation will focus on broadband as an element of a bundle.

4.2.4 Dedicated capacity (retail leased lines)

Dedicated capacity such as leased lines is generally used by businesses which need high quality and high speed always-on internet access, and/or run critical applications. A business would

typically choose a leased line for security, and for guaranteed quality of service supported by a service level agreement. A leased line may also be used to provide dedicated point-to-point services, for example to link offices.

The retail market for leased lines is where an operator offers leased line capacity direct to an end-user. This could be, for example, an operator offering a leased line to a business which uses the facility for internet access.

We have considered the geographic scope of the retail leased lines market. Operators offer uniform pricing, and market their services in a uniform manner, and would generally be able to switch to supply different parts of the island in response to a price increase. While there are usually variations in conditions of competition between geographic areas, we do not consider that these are sufficient to constitute separately defined markets, and so the geographic scope of the market is the Isle of Man.

In the Isle of Man, retail leased lines are supplied by Manx Telecom, C&WIOM, MCB, and Domicilium. If the market is considered to be all retail leased lines (on-island and off-island), then by number of circuits, Manx Telecom's market share is almost 95%.

Our preliminary conclusion is that Manx Telecom has SMP in the market for retail dedicated capacity.

Although Manx Telecom has a very high market share, the availability of a wholesale leased line product allows us to consider below whether regulation in the wholesale market may be sufficient. We do not consider that there is sufficiency of measures under the Fair Trading Act 1996 of Tynwald or the Fair Trading condition (absent a determination of Significant Market Power) of the Telecommunications Act licence to reduce or remove the barriers to entry or to restore effective competition.

4.2.5 Summary and conclusion on market definitions and competition assessment of retail fixed markets

Our preliminary conclusions on the definition and competition assessment of the retail fixed markets are as follows:

The geographic scope of all retail fixed markets is the Isle of Man, because there is not sufficient variation in conditions of competition between geographic areas to warrant the definition of separate geographic markets.

There is a market for retail fixed access. Due to the absence of any wholesale input, wholesale regulation is not an option. Manx Telecom has SMP in this market. There is a market for retail calls from a fixed location, which includes calls to all destinations, and all types of call including calls to mobile and VoIP. Although the barriers to entry are lower than in the market for retail access, they are still high and persistent. While there is availability of an indirect access

wholesale product, it currently addresses restricted aspects of the market, and so wholesale regulation on its own would not be sufficient. Manx Telecom has SMP in this market.

There is a market for retail broadband. Manx Telecom's market share is very high, and it could be assumed that Manx Telecom has SMP. However, there is a wholesale input available, and so we believe that it may be appropriate to address competition problems in the retail market in considering wholesale regulation, and this is discussed further below.

There is market for retail dedicated capacity. Manx Telecom has SMP in the market. Because there are several operators active in this market, and because wholesale inputs are available, we propose to consider competition problems in the retail market in the context of wholesale regulation below.

Q1. Do you agree with our proposed retail fixed market definitions and preliminary SMP findings?
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5. Remedies in the retail fixed markets

5.1 Approach to remedies

In considering how to address Manx Telecom's market power in the retail fixed markets, we need to take into account the potential benefits in having increased competition in the services (such as voice calls and retail broadband) which depend on the access network, but also we need to ensure that Manx Telecom is willing and able to continue to invest in the fixed network. We are aware that Manx Telecom has been upgrading its fixed network, and has plans to continue with the roll-out of NGN (Next Generation Network) infrastructure and services. The availability of high quality communications infrastructure is of recognised importance to business and residential customers.

Under the EU system, a finding of dominance in the retail access market leads to an automatic obligation that the SMP operator must offer wholesale Carrier Select (CS) or Carrier Pre Select (CPS) in order to ensure that dominance in the access market does not constrain competition in the voice calls market. In Manx Telecom's current licence, if it is found to be dominant in the retail access market, the Commission may impose obligations relating to access and interconnection (condition 45.2).

A key development in retail communications over the last few years has been the bundling of products and services. In some countries, bundles may include fixed phone services, broadband, TV and mobile, or any combination of these. Bundling can have benefits for both operators and consumers. For operators, it can allow them to achieve greater economies of scale and of scope, as they can use the same infrastructure to deliver different services. It may also help tie in customers. For consumers, the key appeal of bundling is usually price – the bundle is cheaper than the services would be if they were purchased individually. Other benefits include the convenience of dealing with a single supplier, and receiving a single bill.

Bundling raises particular regulatory issues where an operator is found to have SMP in one or more of the markets which are represented by products in a bundle. In considering the consumer, the Regulator needs to ensure that consumers are not buying goods or services which they do not require. This could be achieved by requiring elements of a bundle to be available individually. The danger in markets which are not competitive is that an SMP operator could, through offering bundled services, leverage its market power by, for example, cross-subsidising competitive and non-competitive elements, or tying the purchase of an element in a non-competitive market to the purchase of an element in a competitive market. A vertically integrated operator which has SMP at the wholesale level and provides a wholesale input on which other operators rely to compete in a retail market could price its upstream and downstream services in such a way as to impede effective downstream competition due to an insufficient margin between wholesale and retail prices. This would constitute a price squeeze.

We have considered how to approach the issue of bundling. On the one hand, we recognise the benefits to consumers and operators. On the other hand, there is a danger that bundling stifles competition and constitutes a barrier to entry to the retail markets. Our proposal is that, should SMP be found in any of the retail markets, we will impose an obligation in all retail markets designed to ensure that bundling is carried out in a way which will promote the advantages and minimise the disadvantages. In order to do this, an operator with SMP in any retail market (including mobile) in which there is an element of a bundled offering must be able to demonstrate that its offering could be replicated by an OLO. This means that the OLO would be able to construct a similar offering based on its own network inputs and/or wholesale inputs where required. In addition to considering access to elements of a bundle, we would also expect that the retail price of a bundle does not constitute a price squeeze. The onus would be on the SMP operator to demonstrate this.

We have also taken account of the "Identification of appropriate remedies condition" of the Telecommunications Act licences issued under Section 5 of the Telecommunications Act 1984 (of Tynwald). In particular the Commission has considered whether the implications of imposition of each of the proposed remedies is proportionate and objectively justified, taking into account such of the following objectives as appeared to the Commission to be appropriate:

- ensuring that there are provided throughout the Island, except where impracticable or not reasonably practicable, such Electronic Communications Services as satisfy all reasonable demands for them;
- ensuring that users derive maximum benefit in terms of choice, price and quality;
- ensuring efficient investment in infrastructure and promoting innovation;
- encouraging the efficient use and effective management of radio frequencies and numbering resources; and
- ensuring efficient and sustainable competition.

Q2. Do you agree with our proposed approach to remedies in the fixed retail markets?
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5.2 Proposed remedies

We have based our consideration of remedies on the regulatory tools identified in the EU approach.

5.2.1 Access

We propose to impose an access remedy in the retail calls and retail access markets, such that an OLO, with the appropriate licence, could request wholesale access to Manx Telecom's network, in keeping with condition 43 (Network Access) of Manx Telecom's licence. In the retail access market, wholesale access could be via, for example, Wholesale Line Rental (WLR). The advantages of wholesale access is that the OLO takes over the responsibility for the customer's line, and the customer can receive a single bill from the OLO for line rental and any other services it buys from the OLO. The disadvantage is the cost of investing in a wholesale variant in a market the size of the Isle of Man, where the potential return on investment will not be high. Costs would be incurred by both Manx Telecom and the OLO. An access remedy would be on the basis of a reasonable request. That is, we do not think it is reasonable to mandate a particular product in this market at this time. However, if an OLO wished to purchase a wholesale variant, an access remedy would give it the right to make a request, and to negotiate with Manx Telecom as to whether it was reasonable or not.

In the retail calls market, we propose to impose an access remedy, such that operators licensed to provide fixed call services (at the moment only C&WIOM has the appropriate licence) could request wholesale access to Manx Telecom's network for the purposes of providing voice services. This could be, for example, for the provision of Carrier Pre Select (CPS) (see condition 45 of Manx Telecom's licence). The difference between CPS and the indirect access currently purchased by C&WIOM is that the customer would not need to dial a prefix, or configure its PBX or home phone to automatically dial a prefix; instead the calls would be routed automatically. The disadvantage is the cost of investing in a wholesale variant in a market the size of the Isle of Man, where the potential return on investment will not be high. The costs would be incurred by both Manx Telecom and the OLO. In addition, it can be argued that CPS is a service in transition, and may already be out-of-date. The functions which CPS performs may be better addressed by offering VoIP (Voice over Internet Protocol). Access would be on the basis of a reasonable request, rather than as a mandated product.

We propose to attach conditions to the access obligation, such that Manx Telecom will be obliged to comply with the obligation in a manner which is fair, reasonable and timely. This applies to the entire process, including the way in which Manx Telecom deals with the access request, through to any eventual implementation of an access product. Should Manx Telecom propose to refuse an access request, it must respond in writing, detailing the reasons why there is a denial of access, and any such refusals should be notified to the Regulator.

In our view, framing the access obligation in this way offers the OLO the opportunity to consider products which may not be available on the island at this time, and should encourage innovation in the provision of services. We would expect that, in making a request for access, the OLO presents a serious business case, as this is the basis for judging whether or not the case is reasonable. It is not reasonable to expect Manx Telecom to develop a series of wholesale products for which there is no likely market.

5.2.2 Transparency

A transparency remedy would oblige Manx Telecom to publish information about its retail prices for access and calls, and about its services. It would also establish a mechanism for publishing any changes to terms and conditions, including prices. In our view, the set of information required in Manx Telecom's current licence (paras 8.2 and 8.3) would constitute a minimum requirement.

Given the earlier discussion about bundling, we would propose to include an obligation to provide transparency around the elements of a bundle. Most bundles offered by Manx Telecom include at least retail access and calls. We propose to impose a transparency obligation on all retail markets, covering the publication of price and non-price terms and conditions and a mechanism for notifying changes to these.

5.2.3 Non-discrimination

We have considered whether Manx Telecom should be obliged not to discriminate in its supply of retail calls and/or access. A non-discrimination obligation in the retail market generally obliges the SMP operator to treat all its customers in an equivalent manner. This is of particular significance when dealing with large business or government customers, because an SMP operator may well offer, for example, volume discounts to a large customer. The strictest interpretation of a non-discrimination obligation would not allow flexibility in the prices, terms and conditions offered to any customer or group of customers. We recognise that a level of discrimination between customers or types of customer may sometimes be justified, and for that reason we propose that the obligation should be that Manx Telecom is obliged not to unduly discriminate between its customers. This means that Manx Telecom may be obliged to justify any discrimination which it practises.

5.2.4 Accounting separation

We have considered whether it is appropriate to require Manx Telecom to produce separated accounts. On the one hand, separated accounts are a key means of ensuring that an SMP operator does not discriminate between OLOs and its own downstream retail operation, and also in ensuring that there is no cross subsidy across products and services. On the other hand, Manx Telecom is a vertically-integrated operator, and it may be that its current accounting regime does not readily provide suitably disaggregated or granular information, and that an obligation to maintain separated accounts may be expensive. We propose to maintain the principle that there must be visibility in how costs are allocated to particular products and services, and that the information must be granular enough to demonstrate first of all that there is no discrimination, secondly that there is no cross subsidy across its retail products and

services, and thirdly that the difference between wholesale and retail prices is such that an equally efficient competitor could compete in the market. The onus, initially, will be on Manx Telecom to explain how this obligation would be met.

As this is a new requirement on Manx Telecom, we propose that Manx Telecom should be compliant with this obligation within 3 months of the date of it coming into effect.

5.2.5 Cost accounting and price controls

There are currently no price controls in operation in the retail markets. This is unusual when compared with other European jurisdictions, most of which have price controls at least on the retail access market. In order to consider whether price controls of some form may be appropriate in the Isle of Man, it is worth setting out the objectives to be addressed. Our aim is to ensure that Manx Telecom does not price excessively in the retail market, to the detriment of consumers, and also to ensure that it does not set its prices too low and cause a price squeeze, to the detriment of other operators. Because there are other operators in the calls market but not the access market, the likely scenario would be that an SMP operator would set its access price as high as possible, and its calls prices as low as possible. One option for the Regulator would be to propose price controls on both markets, which would establish price boundaries within which Manx Telecom would have to operate. An alternative would be to focus on the relationship between the two markets, and indeed between these markets and other retail markets such as broadband and mobile, and establish an obligation not to unreasonably bundle. In our view, this second option directly addresses the key issue. We would expect an obligation not to unreasonably bundle would include provision that OLOs had to be able to replicate a bundle, and also that the retail price did not constitute a price squeeze.

Q3. Do you agree with the remedies which are proposed in the retail fixed markets?
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6. Wholesale fixed networks and services

6.2 Introduction

The characterisation of the retail markets allows us to identify any wholesale inputs which may address these markets.

In order for a retail customer to make a phone call, or to access broadband services, there needs to be a physical transmission channel to the customer, and a means of originating, conveying and terminating the call. This could be provided by an operator establishing an access network to the customer, where call origination, transit and termination would be self-provided, or by a provider being able to purchase some or all elements on a wholesale basis. In some parts of Europe, the transit of calls (usually defined as the long distance conveyance of switched calls on the public telephone network) has become effectively competitive, particularly on routes characterised by high volumes of traffic.

The wholesale markets associated with the ability to make a phone call are the interconnection markets of wholesale call origination, wholesale transit, and wholesale call termination.

In order for a provider to be able to offer broadband services, it needs a transmission channel to a customer, so either has to own an access network, or be able to purchase wholesale inputs. In many European countries, there is a regulatory obligation for the incumbent to offer both a physical wholesale product (for example, Local Loop Unbundling) and a non-physical wholesale product (such as bitstream). Typically, an infrastructure-based physical product gives greater flexibility and control over the retail broadband product than a non-physical broadband product, but it requires more investment.

The final wholesale market is that for the supply of wholesale dedicated capacity such as leased lines, where an operator purchases wholesale leased lines on which it can base its own retail offer.

6.3 Market definition and competition assessment

6.3.1 Call origination, transit and termination

The EC has defined three wholesale interconnection markets. These are:

- Call origination on the public telephone network provided at a fixed location
- Transit services in the fixed public telephone network
- Call termination on individual public telephone networks provided at a fixed location

The three markets combined enable the conveyance of a call across the public telephone network. The EC's current view is that, in many member states, the market for transit is effectively competitive, but that the markets for origination and termination remain susceptible to *ex ante* regulation.

6.3.2 Call origination

In considering the market for wholesale call origination, an operator would either have to self-supply on its own ubiquitous access network, or provide a retail calling service by constructing an alternative access network to the end-user location, or by purchasing or leasing an existing connection. An example of the latter could be, for instance, through local loop unbundling.

It is our view that both direct access, in the form of building an alternative access network, and the leasing of existing connections through for example unbundling the local loop involve considerable time and investment, and that a large part of the investment would entail sunk costs. We do not consider that the construction of alternative direct access or the leasing of existing access constitute realistic potential substitutes for wholesale call origination in the Isle of Man, and propose therefore that a market should be defined for call origination for calls services offered on the fixed public telephone network.

We have considered the geographic scope of the wholesale call origination market. Operators offer uniform pricing, and market their services in a uniform manner, and would generally be able to switch to supply different parts of the island in response to a price increase. While there are usually variations in conditions of competition between geographic areas, we do not consider that these are sufficient to constitute separately defined markets, and so the geographic scope of the market is the Isle of Man.

In the Isle of Man, no operator other than Manx Telecom has deployed significant fixed network infrastructure. This is reflected in Manx Telecom's share of call origination. When considering the total number of minutes originated, Manx Telecom's self-supply accounts for around 85% of the market; C&WIOM's self-supply accounts for just under 3%, and the remainder is Manx Telecom's call origination for Suredial and for 0800 numbers. While, as noted in the discussion of retail call services, there has been some entry into the retail market, both by Indirect Access and by VoIP, Manx Telecom's control over the only fixed line network acts as a significant barrier to retail entry and expansion.

Our preliminary conclusion is that Manx Telecom has SMP in the market for call origination. We do not consider that there is sufficiency of measures under the Fair Trading Act 1996 of Tynwald or the Fair Trading condition (absent a determination of Significant Market Power) of the Telecommunications Act licence to reduce or remove the barriers to entry or to restore effective competition.

6.3.3 Transit

As with call origination and call termination, transit is a wholesale service which constitutes part of the end-to-end call path. In many European countries, there are now alternative network operators offering transit facilities, and the market is no longer considered by the EC to be susceptible to ex ante regulation. However, in the Isle of Man, there are no alternative transit options because Manx Telecom has the only fixed network.

We have considered the geographic scope of the wholesale transit market. Operators offer uniform pricing, and market their services in a uniform manner, and would generally be able to

switch to supply different parts of the island in response to a price increase. While there are usually variations in conditions of competition between geographic areas, we do not consider that these are sufficient to constitute separately defined markets, and so the geographic scope of the market is the Isle of Man.

Our preliminary conclusion is that Manx Telecom has SMP in the market for transit. We also do not consider that the Fair Trading Act 1996 of Tynwald or the Fair Trading condition (absent a determination of Significant Market Power) of the Telecommunications Act licence are sufficient to reduce or remove the barriers to entry or to restore effective competition.

6.3.4 Termination

Wholesale call termination is needed to terminate calls to a subscriber. An operator wishing to terminate a call can only terminate it on the network to which the called subscriber is connected. As the EC has noted, "Each market for call termination on an individual fixed network is a monopolistic market with no tendency towards effective competition"¹⁰.

We have considered the geographic scope of the wholesale call termination market. Operators offer uniform pricing, and market their services in a uniform manner, and would generally be able to switch to supply different parts of the island in response to a price increase. While there are usually variations in conditions of competition between geographic areas, we do not consider that these are sufficient to constitute separately defined markets, and so the geographic scope of the market is the Isle of Man.

Our preliminary finding is that Manx Telecom has SMP in the market for wholesale call termination on its own network. C&WIOM has SMP in the market for wholesale call termination on its own network. Wi-Manx has SMP in the market for wholesale call termination on its own network. We do not consider that the Fair Trading Act 1996 of Tynwald or the Fair Trading condition (absent a determination of Significant Market Power) of the Telecommunications Act licence are sufficient to reduce or remove the barriers to entry or to restore effective competition.

6.3.5 Wholesale broadband access

According to the EC approach, there are two wholesale markets which are linked to the retail broadband market. An operator which does not own its own infrastructure could rent a physical access link by unbundling the local loop on the incumbent's network. This is known as Wholesale Physical Network Infrastructure Access, commonly delivered as Local Loop Unbundling (LLU), and corresponds to EC Market 4. Alternatively, an operator could purchase a non-physical or virtual connection to its customers by using a service commonly referred to as Bitstream. The non-physical inputs correspond to the EC's Wholesale Broadband Access (WBA) Market 5.

¹⁰ European Commission, Explanatory Note accompanying the Recommendation on Relevant product and service markets, (C(2007) 5406).

The key differences between the two types of broadband access product are largely to do with the level of investment and management required of the purchaser, and the flexibility which the purchaser has to differentiate its retail products. LLU allows the OLO to offer a greater differentiation in its products (for example, it could offer different speeds or contention ratios), and could offer different bundles of voice and broadband (assuming it has fully unbundled the line). However, the OLO has to co-locate in the incumbent's exchanges, and the investment costs and subsequent management costs are high. The introduction and roll-out of LLU has proven to be a regulatory challenge in most countries which have adopted this approach, and OLOs often find it difficult to work through negotiating effective access etc. Bitstream offers less flexibility to the OLO in terms of product differentiation, but the initial investment costs are lower.

Naked DSL (nDSL) is a DSL broadband connection without the dial tone, or voice, element. This means that the retail customer would not pay line rental, as the line is considered to be "inactive", and the retail customer could make and receive voice calls over the broadband connection. nDSL is not available in every jurisdiction (for example, it is not available in the UK), but is used as a regulatory remedy in several countries, including Denmark, France and Germany.

In some countries, the network owner may offer a resale broadband product, which allows an Internet Service Provider (ISP) to badge the incumbent's retail product. There is minimal ability for the ISP to influence the nature or delivery of the retail product, and in terms of market definition, this sort of resale product is not normally considered to form part of a defined market as it cannot act as a constraint on the SMP operator.

The wholesale broadband options may be different in a Next Generation (NG) environment. For example, BT in the UK has been trialing a product called Active Line Access, which in terms of functionality sits between LLU and WBA. It is important for us to take the potential evolution of products in an NG environment into account in the review.

In defining a market for Wholesale Broadband Access, we are aware that, at present, there is one type of access product available in the Isle of Man, which is a variant of a non-physical product. We have considered whether the market should be defined to include physical as well as non-physical products, and have also considered how best to address developments which may emerge with the implementation of Next Generation access. Our proposed approach is to define a single broad market for wholesale broadband access, which will be constituted by wholesale inputs required to address the retail broadband market. This will give us the flexibility to consider views as to how the market is likely to develop.

In the Isle of Man, there is no WPNIA provision in the form of LLU. The wholesale input which is available for WBA offers some flexibility for ISPs to differentiate their products, but this seems to be limited. Competition in the retail market is dependent on a well-functioning wholesale market because it is not likely that any operator would seek to replicate Manx Telecom's access

network. Manx Telecom is the sole supplier of a wholesale input, and so has 100% of the market for Wholesale Broadband Access.

We have considered the geographic scope of the wholesale broadband access market. Operators offer uniform pricing, and market their services in a uniform manner, and would generally be able to switch to supply different parts of the island in response to a price increase. While there are usually variations in conditions of competition between geographic areas, we do not consider that these are sufficient to constitute separately defined markets, and so the geographic scope of the market is the Isle of Man.

Our preliminary finding is that Manx Telecom has SMP in the market for Wholesale Broadband Access. Once again we do not consider that the Fair Trading Act 1996 of Tynwald or the Fair Trading condition (absent a determination of Significant Market Power) of the Telecommunications Act licence are sufficient to reduce or remove the barriers to entry or to restore effective competition.

6.3.6 Dedicated capacity (leased lines)

A wholesale market for leased lines would involve an operator (fixed or mobile) purchasing leased line capacity from another operator in order to construct, or extend, its own network and so offer service to end-users. This means that an operator may purchase a wholesale leased line in order to offer a retail leased service to one of its retail customers. Alternatively, an operator may purchase a wholesale leased line as a network input (an example would be a mobile operator using a fixed leased line for backhaul) for offering a range of types of retail service to its customers. Generally, wholesale and retail leased lines are parallel markets – the products are often the same, with differences in the pricing.

The EC approach distinguishes between the trunk segment and the terminating segment of a leased line. While the boundary between the two differs across European countries depending on network topologies, generally the trunk segment is the part of the leased line where traffic may be aggregated and the terminating segment is the thin part of the route which connects to an end-user. In many European countries, alternative infrastructure built on major routes has led to the market for the trunk segment of the leased line being considered to be effectively competitive. However, the terminating segment (the end which connects to the user) is generally associated with lower volume and lower value traffic, and the supply is often dependent on the incumbent's access network. The EC's latest recommendation is that the market for terminating segments of leased lines remains susceptible to *ex ante* regulation, but the market for trunk segments does not. Also, the EC considers that wholesale regulation is sufficient to address competition problems and no regulation is required in the retail market.

In the Isle of Man, Manx Telecom offers retail and wholesale leased lines on-island, and retail (but not wholesale) leased lines off-island. Retail on-island and off-island leased lines are offered by C&WIOM and Domicilium, and MCB offers on-island leased lines. Off-island connectivity is offered on fibres owned by Cable & Wireless UK Limited part of Cable & Wireless

Worldwide¹¹, BT and e-Ilan. In addition to those three, off-island connectivity can be purchased from Manx Telecom and C&WIOM. E-Ilan offers some wholesale on-island connectivity, but only as part of its off-island service. This means that neither Manx Telecom nor C&WIOM owns its own off-island fibre.

We have considered whether leased lines of different bandwidths should fall within the same product market. In terms of functionality, it is generally possible to use multiples of lower capacity leased lines as substitutes for higher capacity leased lines, and higher capacity lines could meet the functional requirements of a low capacity user. We therefore do not propose to split the leased line market by capacity.

We have considered whether the market should include connectivity such as Internet Protocol bandwidth or Ethernet, or whether it should be restricted to traditional leased lines. Our preliminary view is that the market should be characterised as dedicated capacity, and that the technology used to provide that capacity should be immaterial.

We have considered whether the trunk and terminating segment distinction is relevant for the Isle of Man. Because of the geography and the scale of the market, our view at this stage is that this is not a relevant distinction.

We have considered whether the geography of the Isle of Man would lead to separate markets being defined for on-island and off-island dedicated capacity. The pattern of supply of on-island and off-island leased lines would suggest that the markets have different characteristics. Our preliminary view is to define separate markets for on-island and off-island dedicated capacity.

In considering on-island dedicated capacity, our estimate is that Manx Telecom supplies close to 95% of retail leased lines, and close to 100% of wholesale leased lines. Our preliminary view is that Manx Telecom should be designated with SMP in the market for on-island dedicated connectivity. We do not consider that there is sufficiency of measures under the Fair Trading Act 1996 of Tynwald or the Fair Trading condition (absent a determination of Significant Market Power) of the Telecommunications Act licence to reduce or remove the barriers to entry or to restore effective competition.

In considering off-island connectivity, our preliminary view is that there are five operators offering off-island connectivity, based on infrastructure owned by three operators, so that there is a degree of choice for customers. We note that a recent report carried out for the Communications Commission found that the price of off-island connectivity was decreasing, although remained relatively high. However, in the process of collecting data for this review, it seemed that access to, and pricing of, off-island connectivity may be an issue for customers seeking lower levels of capacity our preliminary view is that no operator has SMP in the market for off-island dedicated connectivity, we would welcome further response on this issue.

¹¹ Cable and Wireless Worldwide is no longer connected to Cable & Wireless Communications. Cable & Wireless Isle of Man Limited is part of Cable & Wireless Communications.

6.3.7 Summary conclusions on market definition and competition assessment of wholesale fixed markets

Our preliminary conclusions on the definition and competition assessment of the wholesale fixed markets are as follows:

There is an interconnection market for wholesale call origination, transit and termination. The geographic scope of the market is the Isle of Man. Manx Telecom has SMP in this market. C&WIOM and Wi-Manx have SMP for wholesale call termination on their own networks.

There is a market for Wholesale Broadband Access. This market includes all forms of wholesale input which could be used to provide a retail broadband service, including physical and non-physical inputs. The geographic scope of the market is the Isle of Man. Manx Telecom has SMP in this market.

There are separate markets for on-island and off-island dedicated capacity. Both markets include the provision of dedicated capacity irrespective of the technology used in its delivery. Manx Telecom has SMP in the market for on-island dedicated capacity. On a preliminary basis, we conclude that no operator has SMP in the market for off-island connectivity.

Q4. Do you agree with our proposed wholesale fixed market definitions and preliminary SMP findings?

6.4 Remedies in the wholesale fixed markets

Our overall approach to remedies in the wholesale markets is that any sustainable competition in the retail fixed markets is dependent on the availability of a well-functioning wholesale input. However, we also recognise that the Isle of Man depends on a good quality communications infrastructure, and this needs continuing investment and a return on that investment. Our approach therefore differs significantly from that of the EU in the sense that we propose to take a balanced view of the strategic development of the sector rather than looking to introduce competition at any price.

An underpinning principle of telecommunications regulation is that competing operators should be able to replicate the retail services provided by the incumbent operator, either by building their own infrastructure, by purchasing wholesale inputs, or by a combination of the two. In the Isle of Man at present, an OLO cannot replicate Manx Telecom's retail fixed access, can partially replicate retail fixed calls, and can replicate retail broadband. However, the services which can wholly or partially be replicated depend on wholesale inputs from Manx Telecom.

Our approach to remedies considers two key questions. First of all, which wholesale inputs should be made available? Secondly, where wholesale inputs are made available, under what conditions should this be done? The first of these questions is discussed in terms of an access

obligation, and the second under the supporting remedies of transparency, non-discrimination, accounting separation and cost accounting and price controls.

6.4.1 Access

Given the principle of facilitating replicability of Manx Telecom's retail products, we propose that Manx Telecom should be obliged to offer access to wholesale inputs in all of the defined wholesale markets. We do not propose at this stage to specify products which should be offered, so that access would be made available on consideration of a reasonable request. We have proposed to define broad, technologically-neutral markets, so remaining open to the possibility that OLOs may identify products which are not currently available on the market, and that they would have the right to submit a request for these products, which Manx Telecom would be obliged to consider in terms of its reasonableness. The guiding principle is that, given the preliminary SMP finding, and given the dependence on a wholesale input for competition in the retail market, an effective wholesale solution is essential.

We propose to attach conditions to the access obligation, such that Manx Telecom will be obliged to comply with the obligation in a manner which is fair, reasonable and timely. This applies to the entire process, including the way in which Manx Telecom deals with the access request, through to any eventual implementation of an access product. Should Manx Telecom propose to refuse an access request, it must respond in writing, detailing the reasons why there is a denial of access, and any such refusals should be notified to the Regulator.

In our view, framing the access obligation in this way offers OLOs the opportunity to consider wholesale products which may not be available on the island at this time, and should encourage innovation in the provision of services. We would expect that, in making a request for access, the OLO presents a serious business case, as this is the basis for judging whether or not the case is reasonable. It is not reasonable to expect Manx Telecom to develop a series of wholesale products for which there is no likely market.

6.4.2 Non-discrimination

We propose that Manx Telecom should be subject to an obligation not to discriminate in its supply of wholesale products. Under the Fair Trading obligation in the Manx Telecom licence, Manx Telecom would be prevented from discriminating between OLOs. The proposal is that Manx Telecom should also be obliged not to discriminate between OLOs and its own retail operation. This does not mean that products and services have to be identical, but rather that it is possible to achieve an equivalent outcome. We are aware that Manx Telecom does not fully separate its wholesale and its retail operation. Initially, we propose that the onus is on Manx Telecom to outline how it will not discriminate in practice, and also how it will demonstrate that it is not behaving in a discriminatory manner.

6.4.3 Transparency

While the access remedy addresses the lack of actual wholesale products, the transparency remedy addresses the lack of information about which products do exist, and about the terms on which these products are offered. It is our view that, where Manx Telecom offers products

on the wholesale market, these products should be appropriately documented. An OLO should be able to easily access technical information about wholesale products; information about prices and other terms and conditions; and process information including a change mechanism.

We propose that a transparency obligation should include the following:

- A requirement to publish a Reference Offer for each wholesale product, including appropriate technical specifications, and including a mechanism explaining how changes to the Reference Offer will be made and notified
- A requirement to publish a standard SLA which would govern Manx Telecom's relationship with the OLO. It is increasingly seen as good practice to publish Key Performance Indicators, and this could be done as part of the SLA.
- A requirement to publish prices and non-price terms and conditions for wholesale products.
- A requirement to notify OLOs and the Regulator in advance of the launch of a new wholesale product. We would welcome comment on the appropriate length of notification period. As an illustration, the EC distinguishes between new products based on current generation infrastructure and those based on Next Generation infrastructure, with the latter requiring a longer notification period. The EC recommendation is that new Next Generation wholesale products should be notified 6 months in advance of their launch. We propose to consider comments on this issue, and propose a notification period which may be varied in agreement with the Commission. This approach will give the necessary flexibility in encouraging new products and services.

In considering transparency obligations, we are also concerned to recognise Manx Telecom's commercial needs, and it is likely that there are types of information which should only be available to operators with which Manx Telecom has established a commercial relationship. This could be, for example, where an operator has signed a Non-Disclosure Agreement (NDA).

We believe it is reasonable to specify a time by when Manx Telecom should be compliant with its transparency obligations, and recognise that obligations are simultaneously being imposed across all fixed and mobile, retail and wholesale markets, and that the burden will fall primarily on Manx Telecom. However, it is also essential that regulation put in place as a consequence of this review process takes effect as quickly as possible. We therefore propose that Manx Telecom should be compliant with its transparency obligations within 3 months of their coming into effect, and would welcome comment on this timeframe.

We would also expect that Manx Telecom identifies how it will fulfill a transparency obligation by demonstrating its compliance with the non-discrimination obligation. This may include, for example, Manx Telecom noting, and where appropriate justifying, any differences between the services received by its own downstream retail operation and by OLOs.

6.4.4 Accounting separation

As discussed in the retail market remedies section, we have considered whether it is appropriate to require Manx Telecom to produce separated accounts. We propose to maintain

the principle that there must be visibility in how costs are allocated to particular products and services, and that the information must be granular enough to demonstrate first of all that there is no discrimination, secondly that there is no cross subsidy across its products and services, and thirdly, that there is no price squeeze. Initially, the onus would be on Manx Telecom to explain how this obligation would be met.

As this is a new requirement on Manx Telecom, we propose that Manx Telecom should be compliant with this obligation within 3 months of the date of it coming into effect.

6.4.5 Cost accounting and price controls

There are currently no regulated price controls in the wholesale markets. Where Manx Telecom offers a wholesale variant, this is done on a retail minus basis in the case of leased lines, and on the basis of a set wholesale price in the case of Wholesale Broadband Access. One option to be considered is whether Manx Telecom should be obliged to move to cost-oriented pricing. Cost oriented pricing has the advantage of being very clear about the costs incurred in supplying a wholesale input, so that the competitive positions of the OLO and Manx Telecom's retail operation are more balanced. However, it has implications for the accounting and reporting practices of the incumbent operator. We would welcome comment on whether it would be appropriate to oblige Manx Telecom to move to cost-oriented pricing in the wholesale markets.

Q5. Do you agree with the remedies which are proposed in the wholesale fixed markets?

7. Mobile Communications

7.1 Retail mobile communications

The EC approach suggests that the retail mobile market is characterised as a single cluster market which includes access, national, international, and roaming calls, and SMS. Pre- and post- pay mobile services are generally considered part of the same market. Residential and business users are considered part of the same market, because operators which supply residential users could easily switch to supply business users and vice versa, and indeed most mobile operators supply both. There are two mobile operators in the Isle of Man, Manx Telecom and C&WIOM trading as Sure. Geographic coverage is around 95% for 2G and 83% for 3G; population coverage is 99% for 2G and 98% for 3G. Take up of mobile is high on the Island with a penetration rate of 114% - i.e the number of mobile subscriptions is greater than the population. In terms of subscriber numbers, and taking pre and post paid together, Manx Telecom has 81% of the market. Although this is a very high market share, because there are two networks on the island, we propose to consider regulatory options in terms of wholesale remedies. However, we note comments made on bundling in discussing the retail fixed markets, and intend to apply similar obligations to directly address bundling retail mobile with other retail services.

7.2 Wholesale mobile

In order to provide retail mobile services, operators need wholesale inputs, namely access and call origination, and termination.

7.3 Market definition and competition assessment

7.3.1 Access and origination

Barriers to entry into the market for access and call origination are high, largely because a mobile operator needs to have spectrum in order to offer a service. Because operators need to achieve minimum efficient economies of scale, the number of mobile operators that a market can sustain will, from an economic perspective, be limited.

The Isle of Man currently has two mobile operators, Manx Telecom and C&WIOM, and no Mobile Virtual Network Operators (MVNOs). Because operators rely on their own networks, competition is based on infrastructure, so that neither operator is dependent on a wholesale input from the other¹². An assessment of relative market shares would suggest that Manx

¹² The Only European NRAs to designate SMP in Mobile Access and Call Origination (MACO) are Cyprus, Norway & Slovenia. The tendency elsewhere would be to focus on mobile termination rates (MTRs).

Telecom should be designated with SMP in this market. However, because competition is infrastructure based, it may be that this mitigates its market power to some extent. We would welcome comment on this issue before considering whether it is appropriate to impose remedies, and if so, on what basis.

7.3.2 Call termination

Mobile call termination can be termination of calls from mobiles or fixed lines, and can apply to voice calls and SMS messages. The termination charge is set by the called network, but is paid by the caller, which means that the terminating operator could raise its prices without a constraint from either party to the call.

Where calls are made from one network to another ("off-net calls"), the operator on whose network the call originates has to pay a charge to the operator on whose network the call terminates. This charge is known as the termination rate. Termination rates vary according to whether the call is to a fixed or mobile network, the time of day or day of the week, and whether the call is voice or text.

Where calls originate and terminate on the same network ("on-net calls"), no wholesale mobile termination charge is paid. However, the retail price paid by a customer will include an implicit mobile termination charge for the service of terminating the call on the mobile operator's own network.

In the Isle of Man, as in most European countries, network operators charge each other for terminating calls originating on other networks. In this way the revenue gained from the subscriber who makes a call is divided between that subscriber's network (the originating network) and the network of the called subscriber (the terminating network). According to the European Commission, mobile termination rates in the EU varied widely in 2009 from 2 to 15 euro cents per minute, with an average of 7 euro cents per minute. Mobile termination rates are also on average 10 times higher than fixed termination rates (on average ranging from 0.57 to 1.13 euro cents per minute). In the EC's view, high mobile termination rates make it difficult for fixed and smaller mobile operators to compete with large mobile operators¹³.

The regulation of mobile termination rates has received much attention in Europe and elsewhere in recent years. According to the European Commission¹⁴, the issue is that call termination can only be supplied by the network provider to which the called party is connected. There are currently no demand- or supply-side substitutes for call termination on an individual network. Therefore, each network constitutes a separate relevant market and each network operator has a monopolistic position on the market for terminating calls on its own network. Moreover, under the prevailing Calling Party Pays principle in the EU, the calling party pays entirely for the call, and the wholesale termination rate paid by the originating operator is

¹³ See <http://www.cellular-news.com/story/37367.php>

¹⁴ See Explanatory Note: Commission Staff Working Document accompanying the Commission Recommendation on the Regulatory Treatment of Fixed and Mobile Termination Rates in the EU, SEC (2009) 600.

normally passed on to its end customer. As the called party is not billed for incoming calls, it is generally indifferent to the termination charge set by its network provider (i.e. the terminating operator) and has little or no incentive to change its own network provider in the event that those charges are raised. Consequently, in the absence of other factors such as countervailing buyer power, the criteria necessary to merit *ex-ante* regulation are normally met, and the terminating operator is designated as having SMP.

If we adopt the reasoning put forward by the EC, then Manx Telecom and C&WIOM would both have a monopoly for calls terminated on their mobile networks, and each would have a market share of 100%. We do not consider that there is sufficiency of measures under the Fair Trading Act 1996 of Tynwald or the Fair Trading condition (absent a determination of Significant Market Power) of the Telecommunications Act licence to reduce or remove the barriers to entry or to restore effective competition.

We propose that C&WIOM is designated with SMP for termination on its mobile network, and that Manx Telecom is designated with SMP for termination on its mobile network.

Q6. Do you agree with our proposed market definition and preliminary SMP findings in the mobile markets?
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7.4 Remedies in the mobile markets

We propose that remedies should apply to Manx Telecom and to C&WIOM, as both have SMP on their own networks.

We propose that SMP operators should be obliged to provide network access on reasonable request for the purposes of call termination.

We propose that SMP operators should not unduly discriminate in the provision of access.

We propose that SMP operators should be subject to a transparency obligation, and should give notice of changes to their Mobile Termination Rates, and these changes should be notified to the Regulator in advance of their coming into effect. We welcome comment on an appropriate notification period.

We have considered whether it is appropriate to introduce a price control in the MTR market. Many European countries have *ex ante* controls on MTRs, and often set target MTRs with a glide path for achieving the desired level. The European Commission has set a target date of 31 December 2012 for Regulators to have an appropriate cost model in place to monitor cost-oriented pricing of termination rates, with an extension until 1 July 2014 for Regulators with limited resources¹⁵. We propose at this stage to set out the principles which we expect to be

¹⁵ Commission Recommendation of 7 May 2009 on the Regulatory Treatment of Fixed and Mobile Termination Rates in the EU, (2009/396/EC)

followed in the Isle of Man. Generally, it is expected that MTRs will continue to decrease, to bring them into line with costs. This has been the overall trend across Europe, and the Isle of Man should be no different.

In our view, the major competition problem in the mobile market is the potentially anti-competitive effect of bundling mobile services with fixed services such as retail voice calls and/or retail broadband. This may involve cross subsidies across a range of retail products (horizontal leverage), and may involve a price squeeze between the retail and the wholesale markets (vertical leverage).

A price (margin) squeeze arises when a dominant operator, which provides a wholesale input on which other operators rely in order to compete at the retail level, prices its upstream (wholesale) services and downstream (retail) services in such a way as to prevent others from competing with it at the downstream level. In this case, the relevant upstream market is that for wholesale mobile call termination on and the downstream market is that for retail mobile services. In considering whether there is a margin squeeze, the question is whether, on the basis of the SMP operator's own retail costs, its services would be profitable in the downstream market if it had to pay the same upstream input price as it charges to other operators. This means that the margin between its downstream retail price and upstream wholesale charge (paid by downstream competitors) is insufficient to cover its downstream costs.

We propose to impose an obligation on the SMP operators that they should not behave in a manner which would cause a price squeeze, in terms of the difference between their MTR price and their retail prices. We propose also to address bundling as discussed in the fixed markets, by seeking to maximise its advantages and minimise its disadvantages. Our view is that SMP operators should ensure that their bundles can be replicated, and that the elements of their bundles are transparent.

Q7. Do you agree with the remedies proposed in the mobile markets?
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7.5 Conclusions

This review has assessed the conditions of competition in the telecommunications markets in the Isle of Man, and has come to preliminary conclusions and proposed regulatory remedies for consultation. We are aware that this is a first round review, and our intention is that it establishes a regular cycle of monitoring and evaluating the state of development in the telecommunications markets. It is important that regulation responds to change in the market, and that it is used to support the continuing ability to offer the highest quality services to business and residential customers.

8. Questions to consider

This consultation paper constitutes a notification and invites views on proposals for relevant telecommunications markets, significant market power determinations and proposed additional obligations to remedy potential competition issues. The Commission welcomes views from individuals, interested parties, groups and public representatives. It would be particularly helpful to have your responses to the following questions:

Question 1:

Do you agree with our proposed retail fixed market definitions and preliminary SMP findings?

Question 2:

Do you agree with our proposed approach to remedies in the fixed retail markets?

Question 3:

Do you agree with the remedies which are proposed in the retail fixed markets?

Question 4:

Do you agree with our proposed wholesale fixed market definitions and preliminary SMP findings?

Question 5:

Do you agree with the remedies which are proposed in the wholesale fixed markets?

Question 6:

Do you agree with our proposed market definition and preliminary SMP findings in the mobile markets?

Question 7

Do you agree with the remedies proposed in the mobile markets?

9. Next steps

This consultation is for a period of 6 weeks and responses are required. **Please send your comments by Friday, 29 July, 2011 to:**

Mrs Margaret King
Office Manager
Communications Commission
2nd Floor St Andrew's House
Finch Road
Douglas
Isle of Man
IM1 2PX

Or by email to: margaret.king@iomcc.im

The Commission will consider the responses, a summary of which will be made available on the Commission's website.

Unless specifically requested otherwise, any responses received may be published either in part or in their entirety. Please mark your response clearly if you wish your response and name to be kept confidential. Confidential responses will be included in any statistical summary and numbers of comments received.

When submitting your views please indicate if you are responding on behalf of an organisation.

To ensure that the process is transparent in line with the Government's Code of Conduct on Consultation responses can only be accepted if you provide your name with your response.

The purpose of consultation is not to be a referendum but an information, views and evidence gathering exercise from which to take an informed decision. In any consultation exercise the responses received do not guarantee changes will be made to what has been proposed.

10. Glossary

Acronym	Full title	Description
Bitstream	Bitstream	A non-physical wholesale product provided in the wholesale broadband access market .
Broadband	Broadband	Telecommunication in which a wide band of frequencies is available to transmit information. Because a wide band of frequencies is available, information can be multiplexed and sent on many different frequencies or channels within the band concurrently, allowing more information to be transmitted in a given amount of time
ADSL	Asymmetric Digital Subscriber Line	A variant of DSL. See below definition.
DSL	Digital subscriber line	Digital Subscriber Line technologies which use traditional copper telephony networks to deliver digital broadband signals.
DSLAM	Digital Subscriber Line Access Multiplexer	Allows telephone lines to make faster connections to the Internet. It is a network device, located near the customer's location, that connects multiple customer Digital Subscriber Lines (DSLs) to a high-speed Internet backbone line where multiple data streams are combined into one signal over a shared medium.
EC	European Commission	
ECJ	European Court of Justice	
EU	European Union	
Fibre	Fibre Optic Cable	Optical fibre is a glass or plastic fibre designed to guide light along its length. Optical fibres are widely used in fibre-optic communication, which permits transmission over longer distances and at higher data rates than other forms of communication. Fibres are used instead of metal wires because signals travel along them with less loss, and they are immune to electromagnetic interference.
FTTx	Fibre to the ...	Fibre to the x (FTTx) is a generic term used to refer to any broadband network architecture that uses fibre in the access part of the network, including fibre to the

		home (FTTH), fibre to the building (FTTB), fibre to the cabinet (FTTC), fibre to the node (FTTN), etc.
FWA	Fixed wireless access	The use of radio links for the transmission of voice and data communications
GB	Gigabyte	The abbreviation 'GB' refers to Gigabyte. Digital information storage capacity is often referred to in terms of gigabytes. Gigabytes are used to store large amounts of information (1 GB = 1,024 megabytes). Usage allowance is the amount of data an ISP allows a customer to download/upload each month/week and is generally measured in Gigabytes (GB).
ISP	Internet Service Provider	A commercial entity that offers its customers access to the Internet
Kb	Kilobits per second	The abbreviation 'kb' refers to kilobit per second and is a unit of data transfer rate equal to 1,000 bits per second
LLU	Local loop unbundling	The regulatory process of allowing multiple telecommunications operators use of connections from the incumbent's telephone exchanges to the customer's premises.
Local Loop	Local loop	The physical circuit connecting the network termination point at the subscriber's premises to the main distribution frame or equivalent facility in the fixed public telephone network providers network
LTE	Long Term Evolution	A proposed 4th generation mobile broadband standard, the successor to 3rd generation standards
MB	Megabytes	The abbreviation 'MB' refers to Megabyte and means a unit of data storage capacity equal to one million bytes.
Mb	Megabits per second	The abbreviation 'Mb' refers to megabit per second and is a unit of data transfer rate equal to 1,000,000 bits per second
NGN	Next generation networks	The evolution in telecommunication core and access networks that will be deployed over the next 5-10 years. One network transports all information and services (voice, data, and all sorts of media such as video) by encapsulating these into packets
NRA	National regulatory Authority	A state or government agency which regulates businesses in the public interest
OLO	Other licensed operators	Operators, other than the incumbent, providing telecommunication services
PBX	Private Branch	An organisation's switchboard

	Exchange	
PSTN	Public switched telephone network	PSTN refers to the access network traditionally based on copper wires and carrying analogue voice and data.
SMP	Significant Market Power	
WBA	Wholesale Broadband Access	
WiMax	Worldwide Interoperability for Microwave Access	WiMax is a 4G wireless technology which operates over radio waves.
WPNIA	Wholesale Physical Network Infrastructure Access	Wholesale (physical) network infrastructure access (including shared or fully unbundled access) at a fixed location, more commonly known as LLU