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MALTA COMMUNICATIONS AUTHORITY

Provision of Access at a Fixed Location - Requirements to be complied with by the Universal Service Provider in relation to Functional Internet Access

Response to Consultation and Decision Notice

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Executive Summary

Malta's National ICT Strategy[1] highlights the importance of wiping out the digital divide and making sure that everyone in Malta has access to broadband connectivity at an affordable price coupled with the development and uptake of next-generation high-speed broadband infrastructures.[2]

The Digital Agenda for Europe[3] (one of the seven flagship initiatives of the Europe 2020 Strategy)[4] underlines the importance of broadband deployment to promote social inclusion and competitiveness. The strategy aims to overcome the digital divide and achieve 100% broadband coverage for all European citizens by 2013. It also advocates the adoption of high-speed communications by 2020 and the rolling out of efficient, new-generation networks.[5]

The Malta Communications Authority (hereinafter referred to as the "MCA") is aware of the importance of ensuring universal access to a broadband connection throughout the country. Whereas the availability of access to broadband in Malta can be deemed as superior to the European average, it can still be subject to commercial expediency. A number of users may therefore be unable to access what has now become a universally-accepted essential component of everyday life, because of an inadequate network connection, among others.

Within the current scope of the Universal Service, the realignment of the definition of 'functional Internet access' to include broadband Internet access, is seen as a necessary first step towards the ubiquitous provision of broadband of an appreciable level of speed, quality and availability in all areas, especially those that may not be currently well served by an operator. Moreover, this requirement would be addressed in line with realities on the ground.

The Universal Service regime in Malta is based on the decision notice entitled 'Universal Service Obligations ("USO") on Electronic Communication Services' published by the MCA

[1] Refer to Malta's Smart Island Vision (National ICT Strategy for Malta) 2008 – 2010: https://mitc.gov.mt/page.aspx?pageid=263&lid=1.

[2] Refer to Stream 2 of the Malta's Smart Island National ICT Strategy - A connected society – bridging the last and the new miles. The strategy states that "Everyone should be able to afford a computer with a broadband connection at home." In line with the strategy approximately 80% of Maltese households have access to a broadband connection.

[3] Refer to the Digital Agenda for Europe 2010 – 2020 - http://ec.europa.eu/information_society/digital-agenda/index_en.htm. The Digital Agenda for Europe is one of the seven flagship initiatives of the Europe 2020 Strategy, set out to define the key enabling role that the use of Information and Communication Technologies (ICT) will have to play if Europe wants to succeed in its ambitions for 2020.

[4] Refer to Europe 2020 Strategy for smart, sustainable and inclusive growth: http://ec.europa.eu/eu2020/index_en.htm.

[5] The EU Digital Strategy focuses on two parallel goals: on the one hand, to guarantee universal broadband coverage (combining fixed and wireless) with internet speeds gradually increasing up to 30 Mbps and above and over time to foster the deployment and take-up of next generation access networks (NGA) in a large part of the EU territory, allowing ultra fast internet connections above 100 Mbps. The strategy restates the objective to bring basic broadband to all Europeans by 2013 and seeks to ensure that, by 2020, (i) all Europeans have access to much higher internet speeds of above 30 Mbps and (ii) 50% or more of European households subscribe to internet connections above 100 Mbps.

on the 15th April 2010 and updated in March 2011 (hereinafter referred to as the "**USO Decision**").[6]

In line with **Decision 1** of the USO Decision, GO Plc (hereinafter referred to as "GO"), as the currently designated universal service provider ("USP"),[7] is required to provide upon request a connection at a fixed location to the public telephone network and for access to publicly available telephone services at a fixed location. Such a connection must be capable of allowing end-users to make and receive local and international calls, facsimile communications and data communications, at data rates that are sufficient to permit functional Internet access.

Consultation Process

In September 2010 the MCA published the consultation paper (MCA/10/49/C) entitled "Ensuring Universal Access to a Broadband Connection - A review of the definition of functional Internet access, within the context of the Universal Service requirement".[8]

The consultation paper outlined the MCA's proposed approach to the setting of requirements to be complied with by the designated USP for the provision of access at a fixed location, in relation to the provision of a connection capable of supporting functional Internet access at a specified minimum broadband data rate (referred to as "the access line speed").

The MCA sought the views on the proposed approach prior to reaching its decision on the appropriate action to take. Submissions were received from GO and Melita Plc (hereinafter referred to as "Melita") at the beginning of November 2010. At the request of GO, also in light of its position as the currently designated USP, further discussions on the proposed approach were held with GO. All views expressed have been considered by the MCA before reaching its final decision and are discussed at the appropriate section in this document.

Designation of Undertaking

In order to include broadband access within the scope of the universal service the MCA must not exclude *a priori* other undertakings from the possibility of being designated for the provision of such a USO. Therefore, prior to setting the requirements to be complied with by the currently designated USP for access at a fixed location, in relation to the provision of a connection capable of supporting functional Internet access at a specified minimum broadband data rate, the MCA considered whether any other undertaking(s) was willing to provide this universal service. In May 2011 the MCA published its proposed decision and requested undertakings to express their interest in the provision

[6] Refer to USO Decision - http://www.mca.org.mt/sites/default/files/articles/2011_03_ECS_USO_Decsion.pdf.

[7] Refer to Annex 1 of the **USO Decision** whereby GO Plc is the current universal service designated undertaking for the provision of access at a fixed location.

[8] Refer to Consultation Paper – http://www.mca.org.mt/sites/default/files/articles/USO_Broadband_Cons._Sep10.pdf.

of this universal service by the beginning of June 2011.[9] No interest in the provision of this universal service was expressed by any other undertakings.

As no undertakings expressed their interest in providing the universal service for the provision of access at a fixed location, the MCA is hereby publishing its formal decision on the requirements to be complied with by GO, as the currently designated USP, for access at a fixed location in relation to the provision of a connection capable of supporting functional Internet access at a specified minimum broadband rate.

Decision

The MCA's decision on the requirements to be complied with by the designated USP for access at a fixed location with regard to the provision of a connection capable of supporting functional Internet access at a specified minimum broadband data rate is stated in **Section 3** of this report on the response to consultation and decision notice.

Overall, the measures encompass the following:

- The USP is required under **Decision 1** of the USO Decision to provide upon request a connection at a fixed location to the public telephone network. Such a connection must be capable of allowing end-users to make and receive local and international calls, facsimile communications and data communications at data rates that are sufficient to permit functional Internet access.

- At the choice of the end-user, the USP is required to provide the above connection at a guaranteed access line speed of 4 Mbps. If the connection does not permit the provision of such broadband Internet access for technical or economical reasons, and no alternative offering is readily available on the market under comparable conditions to the end-user requesting the connection, the USP is allowed to provide the connection at a speed that is lower than the access line speed specified above. In these exceptional cases, the access line speed must not be lower than 2 Mbps.

- The USP is required to take the utmost account of the set minimum requirements when planning network build, providing individual connections to the network and when responding to requests to address service quality including:

    - meeting the established target of 97% for the total number of installed telephone lines capable of meeting or exceeding the established reasonable minimum data rate of 4 Mbps;

    - facilitating verification by end-users who have legitimate doubts about the data capability of their telephone line and establishing procedures to diagnose individual lines;

[9] Refer to the Proposed Decision and Request for Interest
- http://www.mca.org.mt/sites/default/files/consultations/BB_USO_P.Decision11.05.11.pdf

  - where an end-user's telephone line is not capable of achieving the specified data rate, the USP is required to use all endeavours to ensure compliance, following a request by the end-user; and

  - where it is not possible on any given line for the USP to achieve the established minimum data rate of 4 Mbps, the USP must tangibly demonstrate that it is in the process of making, or planning to make, improvements to its network.

- The MCA will periodically review and, if necessary, upgrade the minimum data rate for functional Internet access in line with advances in the information society.

In arriving at this decision the MCA has been mindful of the national priority of making the availability of a broadband connection to every citizen and the resources needed to achieve this.

The effective date of this decision is 1st August 2011.

1. Introduction

A competitive market in which all the key players have a purely commercial remit will serve the needs of most consumers, but there is a danger that some may be left behind. Access to electronic communication networks and services is now such an essential part of life such that, without it, citizens would be unable to participate in a host of activities, thereby running the risk of social exclusion.

Universal services are generally defined as a minimum set of electronic communication services essential for the general public to participate in society, and those which are already available to the great majority of citizens. These services should be made available at just, reasonable and affordable rates ensuring that persons on low income, those residing in rural, insular, or high installation cost areas, persons with disabilities, and other vulnerable groups, have access to these services at reasonable prices.

The European regulatory framework for electronic communications recognises the importance of ensuring that a basic service – "the Universal Service" - is provided to all end-users at an affordable price. The Universal Service consists of access to the publicly available telephone network at a fixed location, capable of supporting voice, facsimile and data communications at data rates that are sufficient to permit functional Internet access; payphones; services for users with disabilities; and affordability.

1.1 Legal Basis

The USO as defined under the Electronic Communications (Regulations) Act, Cap. 399 of the Laws of Malta (hereinafter the "Act")[10] and the Electronic Communications Networks and Services (General) Regulations, SL399.29 of the Laws of Malta (hereinafter the "Regulations")[11] indicate the minimum supply of electronic communication services that all end-users have the right to benefit from.

A fundamental requirement of the USO is that all reasonable requests for connection to the public telephone network and access to publicly available telephone services at a fixed location are met by at least one operator. The manner in which this is achieved is not prescribed and the principle of technology neutrality allows the USP to choose the optimum method for providing access at a fixed location. Transmission need not take place via a physical line but can just as well take place wirelessly. The services have to be provided to the user at just, reasonable and affordable prices in line with the Act.

In line with Regulations, the MCA is allowed to expand the scope of the universal service obligations to the provision of a broadband connection that allows 'data rates that are sufficient to permit functional Internet access, taking into account prevailing technologies and bandwidth used by the majority of subscribers and technology feasibility'.

[10] Refer to http://docs.justice.gov.mt/lom/legislation/english/leg/vol_12/chapt399.pdf.

[11] Refer to http://docs.justice.gov.mt/lom/Legislation/English/SubLeg/399/28.pdf.

It is noted that the regulatory framework does not extend the minimum set of universal services to the provision of an 'Internet service' but to a 'data connection permitting functional Internet access'. This differs from the approach taken with regard to the telephone service, in which case subscribers have a right both to a connection that, can among others, sustain telephony, as well as to the telephony service itself.

Accordingly, this decision refers only to the requirements to be complied with by the USP in relation to the provision, upon request, of a connection permitting functional Internet access at an established minimum broadband data speed and not to the provision of the service itself.[12]

The MCA notes that the European Commission is nonetheless looking into the implications of extending the minimum set of universal services to include a broadband access service of specified quality which is to be made available to all end-users regardless of their geographical location and, in the light of specific national conditions, at an affordable price. The MCA's position will be informed by national policy developments, with respect to broadband availability, and further development on the part of the European Commission, regarding broadband as a universal service.

1.2 Provision of Access at a Fixed Location

In line with **Decision 1** of the USO Decision, GO as the currently designated USP is obliged to provide, amongst others, the universal service for the provision of access at a fixed location.[13] GO is required to provide on request a connection at a fixed location to the public telephone network and for access to publicly telephone services at a fixed location. Such a connection must be capable of allowing end-users to make and receive local and international calls, facsimile communications and data communications, at data rates that are sufficient to permit functional Internet access.

In the USO Decision, the MCA noted that the dependency on the Internet has grown significantly and the current needs of the majority of subscribers cannot be met by conventional dial-up modems due to broader bandwidth requirements. In addition, the MCA noted that GO has replaced practically all its dial-up connections with broadband Internet connections to its subscribers on its own accord.[14]

[12] This refers to the physical installation of networks allowing the initial connection with a specified broadband access line speed and not to the usage of such service over the network (i.e. the broadband Internet service). The cost of the provision of a connection to the network, i.e. network roll-out and installation, is usually reflected in the installation/set-up charge and/or other relevant charges. For usage of broadband Internet service, customers are usually charged a monthly subscription fee and/or other relevant fees.

[13] In line with **Decision 11** of the MCA's Decision Notice, the MCA intends to review the designations contained in this decision within two years from the date the designated undertakings provide the universal service. It reserves the right to review these designations outside this timeframe as it deems appropriate according to its powers at law. GO was designated as the USP for the provision of access at a fixed location in July 2010.

[14] The USP is to-date providing users on request with a connection to the public telephone network at a fixed location capable of broadband Internet access. A 1 Mbps broadband package was offered as a promotional package for dial-up users to move to a broadband connection in view of the fact that as from 8th January 2010 GO no longer accepted orders for the dial-up internet service. This 1 Mbps broadband package is no longer available by GO. It is noted that at the end of December 2010 there were only 50 dial-up subscriptions. GO Plc currently offers an entry-level broadband package over its telephone line (DSL) capable of a download speed of up to 4 Mbps.

1.3 Functional Internet Access - A Broadband Connection

In view of Government's policy direction in ensuring the availability of a broadband Internet connection to every citizen, there is the need to define the level of functional Internet access and specify the requirements to be complied with by the USP designated for the provision of access at a fixed location, having regard for the prevailing bandwidth used by the majority of subscribers and technology feasibility.

The MCA notes that a universal service requirement that sets the minimum access capability is seen as a 'floor' that in no way hampers the provision of higher – or even lower – bandwidth broadband Internet services by a fixed wired-line or wireless connection. What is essential is that, within reasonable bounds, all people and businesses in Malta can have the ability to access the Internet via what is considered as a minimum acceptable broadband access line speed.[15]

[15] This means that the USP, at the choice of the end-user, may provide a connection allowing end-users to make and receive local and international calls, facsimile communications and data communications at data rates that are sufficient to permit functional Internet access below or above the established minimum acceptable broadband access line speed.

2. Consultation Issues – Functional Internet Access

As the designated USP for access at a fixed location, GO is required to provide users, upon request, with a connection capable of supporting voice, facsimile and functional Internet access.[16] As mentioned previously, the Regulations permit the MCA to modify the definition of functional Internet access (i.e. the speed at which data may be transmitted over a connection to the public telephone network – referred to as the access line speed) to reflect prevailing technologies and bandwidth used by the majority of subscribers and technological feasibility.[17]

In the consultation paper, the MCA proposed to establish a minimum data rate for functional Internet access which the USP is required to provide to all its end-users who request a connection supporting voice, facsimile and functional Internet access. The MCA also noted that it intends to periodically review and, if necessary, upgrade the minimum data rate required for functional Internet access in line with advances in the information society.

2.1 Factors Affecting Data Speeds

The data rate for functional Internet access refers only to those aspects of an Internet connection, that is, the quality of the physical connection, or line,[18] and the rate at which signals can be transmitted over the line (i.e. the access line speed)[19]

The MCA recognises that unlike the physical connection line speed, the actual speeds of broadband connections[20] vary to a certain degree e.g. at different times of day depending on network load.[21] Likewise, the properties of the terminal equipment devices as well as user location, environment and mobility also impact the data transfer rate received by the user. It should also be noted that the characteristics of networks located outside Malta cannot be measured.

[16] The technology used to provide the universal service is not laid down in the Regulations. The USP may use the technology (whether wired or wireless) which it deems to be the most appropriate for delivering the required set of services.

[17] Namely the MCA may require the connection to be brought up to the level enjoyed by the majority of subscribers.

[18] The physical access line speed is stable with respect to transmission characteristics – its characteristics are defined by interface specification of the respective network and are not influenced by traffic variations. In other words, the maximum achievable transmission quality is determined / limited by the capabilities of the physical access.

[19] The access line speed refers to the maximum speed of the data connection between the broadband modem and the local exchange or cable head end. This constitutes the maximum speed a consumer will be able to experience on his/her individual line.

[20] The actual throughput (or download) speed is the actual speed that a consumer experiences at a particular time when they are connected to the Internet. This figure is often dependent on factors such as the Provider's network, its traffic shaping and management policy, the number of subscribers sharing the network and the number of people accessing a particular website at a particular time.

[21] The capacity taken up by an individual user of the internet depends materially on the type of internet used. The majority of internet usage comprises browsing, using email to watching videos, which only take up capacity momentarily, whereas problems arise from P2P heavy users sharing music and films over the internet.

As already mentioned above, this decision refers to the requirements to be complied with by the USP in relation to the provision, upon request, of a connection permitting functional Internet access at an established minimum broadband speed and not to the provision of the service itself. However, apart from the quality of the physical connection capable of achieving a specified access line speed, the speed and quality of end-to-end broadband services is an important factor for end-users. In some cases, the actual performance of broadband Internet services experienced by consumers does not match up with the speed or quality of broadband that consumers are expecting (based on the level of performance advertised by the broadband provider).[22]

Therefore, as a separate initiative the MCA is undertaking an exercise of broadband quality of service ("QoS"). This will include, amongst others, the measurement and publication of the QoS parameters for Internet access offered by broadband providers in Malta and the laying down of provisions for the day's average connection data rate that would be considered acceptable.[23] These measures are intended to prevent significant disparities between end-users' expectations of broadband performance and their actual experience.

The MCA also intends to make available information to end-users about the type of service they are likely to receive upon entering into a contract with a broadband electronic communication service provider (e.g. information on broadband speeds, taking into consideration different technologies, information that should be made available to end-users at point of sale,[24] and information to be provided on the providers' website[25]). The facility for end-users to compare information on broadband speeds, prices, and quality offered by electronic communication service providers is another initiative the MCA intends to carry out. These initiatives will help ensure that end-users choose the broadband package that is the most appropriate for them, in light of their individual circumstances and needs.

The MCA will also review the contractual obligations of all operators providing a connection to a public communications network and, or publicly available electronic communications services, in order to ensure that they are providing their subscribers with clear and comprehensive contracts in line with the new rules to be brought into

[22] The headline (or advertised speed) is the speed that the service providers use to describe the packages that they offer to the consumers. They are often described as 'up to' speeds but these are often only a guide as to the speed a service provider can provide and at what price. It is noted that some technologies used in supplying fixed line access broadband services, for example on cable networks, the access line speed is expected to be consistent with the headlines speed. Nevertheless, the actual throughput (or download) speeds are likely to be lower than the headline speeds, regardless of the technology used.

[23] This refers to the average throughput (or download) speed. This is an average of actual throughput speed for each different broadband package offered by the provider.

[24] For example information to end-users on the speeds they could expect to obtain from their broadband service, such as, access line speeds. Information on access line speeds benefits consumers because it provides end-users with an expectation on their specific line. End-users also benefit from having information about actual throughput speeds (the download speed which they obtain in practice whilst using the internet) and policies related to fair usage (traffic management and traffic shaping).

[25] For example information on how end-users can check access line speed and actual throughput speed they are receiving in practice and steps that can be taken to ensure they receive the highest possible access line speeds and actual throughput (or download) speeds.

force this year.[26] Under the new rules all undertakings are to provide their subscribers with a contract that shall specify in a clear and comprehensive manner, amongst others, information on the minimum service quality levels, including the minimum access speeds in case of Internet service, ensuring that this does not differ significantly from the marketed upper levels (i.e. the headline or advertised speed).[27]

2.2 Minimum Data Rate for Functional Internet Access

Malta is a country that is small in area and densely populated and it is therefore difficult to draw distinctions between urban and rural areas. Fixed wired (both DSL and cable) and fixed wireless (WiMax) broadband networks exist virtually throughout the country.[28]

In its consultation paper, the MCA noted that, as at June 2010, Malta's fixed broadband penetration rate per population stood at 28.4%[29] with the vast majority of subscribers opting for a broadband package of more than or equal to 4 Mbps (97.88%). The MCA noted that to-date GO offers an entry-level broadband package over its telephone lines (DSL)[30] with an advertised speed of up to 4 Mbps download and 512 kbps upload. This broadband package is available to all permanent residences and business offices having a telephone subscription (i.e. access to the publicly available telephone service) with GO Plc.[31]

Taking into account Malta's current broadband penetration rate, the prevailing bandwidth used by the majority of broadband users and the entry level broadband packages available on the market, the MCA stated that it is of the opinion that defining functional Internet access with a minimum data rate of 4 Mbps as a universal service is deemed to be technologically and economically feasible.

Therefore the MCA proposed that the USP, in meeting its requirements under the USO, is required, upon request, to provide end-users with a fixed connection capable of 4 Mbps

[26] On 23rd June 2010 the MITC published a consultation on the proposed changes to the Electronic Communications Networks and Services (General) Regulations. These may be viewed via the following website – https://mitc.gov.mt/page.aspx?pageid=794.

[27] Advertised speeds are rarely achievable in practice by the majority of consumers that buy them. This is due to a number of factors, including the nature of the customer's line, the number of subscribers sharing the network, and the number of people accessing a particular website at a particular time. The disparity between actual throughput (or download) speeds and headline or advertised speeds often leads to consumers feeling confused and frustrated. With consumers' interests in higher broadband speeds likely to rise, it is important to remedy this mismatch in their expectations to avoid such confusion and frustration.

[28] In addition to fixed broadband services, mobile 3G/UMTS broadband services are available throughout the Islands of Malta.

[29] This figure does not necessarily correspond to the number of Internet users. An Internet connection is most of the time accessed, possibly simultaneously, by several users. This means that more than half of the households in Malta use broadband at a data rate equal to or above 4 Mbps (approximately 80% of all households in Malta having access to a broadband connection) and over 97% of all broadband subscribers use broadband at a data rate equal to or above 4 Mbps. As at the end of June 2010 a total of 117,537 broadband Internet subscriptions (Cable - 54,223, DSL - 59,235, Fixed Wireless - 4,079) were registered with local service providers – (MCA).

[30] DSL (or Digital Subscriber Line) means a family of technologies generically capable of transforming ordinary phone lines (also known as twisted copper pairs) into high speed digital lines.

[31] Refer to http://www.go.com.mt/Default.aspx?ID=1756 for GO Plc's 4 Mbps Service Description for Businesses and http://www.go.com.mt/Default.aspx?ID=1265 for GO Plc's 4 Mbps Service Description for Residential customers.

as the minimum data rate for functional Internet access[32] subject to the provisions outlined in the following two sections (**Section 2.3** – Performance Targets for Enabling Functional Internet Access and **Section 2.4** – Minimum Requirements).

The consultation paper posed the following question:

Q1. What are your views on requiring a fixed connection to be capable of a minimum data rate of 4 Mbps?

2.2.1 Summary of Respondents' views

In its response to consultation GO stated that an obligation to provide access to a fixed connection capable of functional Internet access at a minimum data rate of 4 Mbps is overambitious, unrealistic and unattainable universally. GO also noted that contrary to what was stated in the consultation paper, the 4 Mbps broadband package is not GO's entry-level broadband product but there exists a broadband package of 1 Mbps.[33]

GO stated that to achieve 100% of all fixed line connections capable of a data rate of 4 Mbps would require a significant number of years and substantial investment. GO stated that such an obligation would divert investment funds away from other important initiatives and would result in a net cost which would represent an unfair burden.

GO noted that in other EU Member States where broadband Internet access, under a USO has been proposed, none has come even close to proposing the speeds proposed by the MCA in its consultation paper.

On the other hand Melita agreed with the MCA's proposal that the USP must, in meeting its requirements under the USO, on request provide a fixed connection capable of 4 Mbps as the reasonable minimum data rate for functional Internet access. Melita noted that the vast majority of all broadband connections were in the range of between 2 Mbps and 4 Mbps. Melita noted that the MCA is quite correct to conclude that "defining functional Internet access with a minimum data rate of 4 Mbps as a universal service is deemed to be technologically and economically feasible".

Melita also noted that higher connection rates are likely to become the norm as more and more usage is made of higher bandwidth services and the number of information society services that are available online to end-users continues to increase.

2.2.2 MCA's Response

In line with Regulations the data rate for functional Internet access should be set by taking into account the prevailing bandwidth used (i.e. taken up) by the majority of

[32] This means the provision of a connection to the public telephone network at a fixed location at the request of an end-user permitting functional internet access at a data rate of 4Mbps (i.e. the access line speed).

[33] The MCA is of the understanding that such a package was a promotional package for dial-up users to move to a broadband connection in view of the fact that as from 8th January 2010 GO Plc no longer accepted orders for the dial-up internet service. This package is no longer available by GO.

subscribers and technological feasibility. The technology used to provide the universal service is not laid down in the Regulations and the USP may use the technology which it deems to be most appropriate.[34] These criteria are important in light of the need to minimise market distortion – key in maintaining the purpose of universal service as a safety net designed to ensure the provision of a minimum set of services to end-users irrespective of their geographical location and at an affordable price.

As at December 2010 Malta's fixed broadband penetration rate per population increased to 29%[35] with around 98.4% on a package of speeds of more than or equal to 4 Mbps. In addition, it is estimated that to-date approximately 80% of all households have access to a broadband connection.[36]

Defining functional Internet access as a broadband connection with a data rate of 4 Mbps is therefore deemed to be technologically and economically feasible. It is the prevailing bandwidth used by the majority of subscribers in Malta. As already mentioned above, higher connection data rates will be required in the future as the scope and number of information society services available online increases.

The MCA is therefore of the opinion that the USP, in meeting its obligations under the USO, should provide, upon reasonable request, a fixed connection of 4 Mbps as the minimum data rate for functional Internet access subject to the provisions outlined in the following sections.

In reaching its decision the MCA also took note of Melita's positive response to the MCA's proposals put forward in the consultation paper with regard to setting of a minimum data rate of 4 Mbps for functional Internet access.

In line with the Regulations, prior to issuing its final position on the requirements to be complied with by GO as the currently designated USP, the MCA assessed whether any other undertaking(s) was interested in providing the universal service for the provision of access at a fixed location in line with **Decision 1** of the USO Decision and the measures depicted in the MCA's proposed decision.[37]

2.3 Performance Targets for Enabling Functional Internet Access

In the consultation paper the MCA noted that it is appropriate to establish an overall timeframe by which the USP must be in a position to provide every permanent residence and permanent office of business, having an existing connection to the public telephone

[34] At present, GO serves practically all the territory using ADSL technology. GO may choose another appropriate technology in order to provide the broadband connection in those regions which may not covered by ADSL. The MCA expects that the least cost option technology available will be utilised when providing a connection, provided that the connection is capable of allowing access to all elements of the universal service – voice, fax and data.

[35] As at the end of December 2010 a total of 119,379 broadband Internet subscriptions (Cable - 51,319, DSL - 63,401, Fixed Wireless – 4,659) were registered with local service providers. As at the end of March 2011 a total of 127,363 broadband Internet subscriptions were registered with local service providers – MCA.

[36] More than half of the households in Malta use broadband at a data rate equal to or above a speed of 4 Mbps (nearing 80% of households) with 98.4% of all broadband subscribers using broadband at a data rate equal to or above a speed of 4Mbps.

[37] Refer to http://www.mca.org.mt/sites/default/files/consultations/BB_USO_P.Decision11.05.11.pdf.

network, access to a broadband connection capable of functional Internet access at the established minimum data rate. The MCA noted that the timeframe by which all installed lines must be capable of achieving the established minimum data rate will be established based on material provided by the currently designated USP with regard to the state of play of the network in this regard.

The MCA proposed that in the case of new requests for a connection to the public telephone network there may be instances where, despite the USP making all reasonable endeavours, it will not be possible for all access lines to be capable of achieving the established minimum data rate within the short to medium term. Therefore in such exceptional cases the USP is allowed to provide the connection at a data transmission rate that is lower than the established minimum data rata in cases when an alternative comparable connection is readily available to the end-user via another operator. However the USP should be able to demonstrate that it is in the process of making, or planning to make, improvements to its network where this is not capable of supporting the established minimum data rate, together with the related implementation timeframe.

The MCA also proposed that the USP should publicly report on the individual locations and the number of lines therein which do not support the established minimum data rate. Such an approach should be an effective yardstick against which performance in upgrading the network can be assessed by the MCA and end users alike.[38]

The MCA noted that it will review the material provided by the USP. Furthermore, in line with the Regulations, the MCA may arrange or require the USP to enter into a contract with a competent, experienced and reputable independent organisation having no links with the USP to carry out an independent audit and/or review of the material supplied to ensure the accuracy and compatibility of the information provided.

The consultation paper posed the following questions:

Q2. What are your views regarding the establishment of a performance timeframe, by which every permanent residence and permanent office of business, having an existing connection to the public telephone network, must be in a position to access a broadband connection capable of functional Internet access at the established minimum data rate?

Q3. What are your views regarding the proposal that, in the case of new requests for a connection to the public telephone network at a fixed location, there may be exceptional cases where the data transmission rate may be reduced in the short-term, when an alternative comparable connection is readily available to the consumer via another operator?

[38] Information on access line speeds benefits consumers because it gives them a better idea about the maximum speed possible on their specific telephone line, as access line speeds depend closely on the particular technical characteristics of the line.

2.3.1 Summary of Respondents' views

In its response to the consultation paper, GO noted that it is not in a position to satisfy all possible demands for 4 Mbps connections across the whole Maltese territory in the short to medium term. GO noted that there are a number of fixed line connections which are to date not capable of achieving a connection of 4 Mbps mainly due to the distance between the subscriber and the telephone exchange. GO also noted that the MCA's proposal to publish information regarding the USP's lines not capable of achieving 4 Mbps would give its competitors an advantage.

Melita agreed with the MCA's proposal to establish a performance timeframe within which all customers should be able to access a broadband connection that is capable of delivering internet access with a data rate of at least 4 Mbps. Melita noted that any such mandated performance timeframe needs to take account of the USP's ability to provide access to the required kind of broadband connection over its network. Melita also believes that an obligation of this type should be framed in such a way as to take account of issues such as the precise nature and location of the access request.

Melita noted that it does not agree with the MCA's proposal to reduce the minimum data transmission rate that the USP is obliged to provide, in instances where it is not possible for the USP to provide a broadband connection capable of delivering an internet access service with the minimum data rate, and where this data rate is accessible via a different network.

2.3.2 MCA's Response

The MCA is of the opinion that the USP should use all reasonable endeavours to ensure that all connections to the public telephone network are capable of a reasonable minimum data rate of not lower than 4 Mbps.

The MCA recognises that there may be technical or economic reasons[39] where, despite the USP making all reasonable endeavours, it will not be possible for all lines to be capable of achieving the proposed minimum data rate of 4 Mbps within the designation timeframe of the current USO Decision.[40]

The MCA is therefore of the opinion that if the connection does not permit the provision of broadband Internet access at the established minimum data rate of 4 Mbps for technical or economical reasons, and no alternative offering is readily available on the market under comparable conditions, the USP is allowed to provide the connection at a

[39] The ADSL technology mainly used by the currently designated USP to provide a broadband connection sometimes comes up against technical limits, for example when the distance between the subscriber and the telephone exchange is too great. Furthermore, in some regions the provision of an ADSL line may involve a substantial investment. In such cases the USP may choose to provide the service using other, less costly technologies, which may not be able to achieve the full performance of the standard broadband connection.

[40] **Decision 11** of the USO Decision - The MCA intends to review the designations contained in this decision within two years from the date the new designated undertakings provide the universal service. It reserves the right to review these designations outside this timeframe as it deems appropriate according to its powers at law. GO was designated as the USP for the provision of access at a fixed location in July 2010.

speed that is lower than the access line speed specified above. However, in these exceptional cases the access line speed must not be lower than 2 Mbps.[41]

In practice this would mean that if, in exceptional cases, the USP is not in a position to provide the connection at an access line speed of 4 Mbps to an end-user and another provider is in a position to offer broadband Internet access to the end-user which is comparable in terms of speeds and prices, the USP would not be obliged to provide the connection at an access line speed of 4 Mbps to this end-user. However, it will generally be in the USP's interest to find a satisfactory solution for the end-user. If there exists no other provider offering broadband Internet access under comparable conditions and the USP is not in a position to provide the connection at an access line speed of 4 Mbps for technical or economical reasons, then the USP must provide the end-user with a connection at the maximum possible access line speed but this must not be lower than 2 Mbps.

The MCA expects that a subscriber to a broadband Internet service must be appropriately informed by the operator on the access line speed achieved by the connection. The minimum access line speed must not differ significantly from the marketed upper levels (i.e. the advertised speed) of the broadband package.

Notwithstanding the above, the MCA is of the opinion that there should be a general target set for the percentage of total installed telephone lines capable of achieving a reasonable minimum data rate of 4 Mbps which the USP should strive to meet. Such a target should be seen as an effective yardstick against which the performance in upgrading the USP's network can be assessed by the MCA.

Building on GO's current position, the MCA considers that a target of 97% of all telephone lines capable of a reasonable minimum data rate of 4 Mbps is a reasonable and useful starting point for a performance target. This will ensure that the vast majority of the USP's fixed access telephone lines within Malta achieve the established 4 Mbps access line speed or better for functional Internet access.

Based on its understanding of the situation on the ground, the MCA is of the view that GO's investment in broadband will continue to improve the overall percentage of lines capable of the established minimum data rate of 4 Mbps but not to a point where its entire network would be upgraded within the timeframe of the current USO Decision. At the same time the MCA expects that GO will substantiate this perception by demonstrating tangibly that it is in the process of making, or planning to make, improvements to its network where this is not capable of supporting the established minimum data rate of 4 Mbps.

The MCA had originally considered the imposition of a binding requirement for the USP to achieve a target of 100% of all the USP telephone lines to be capable of a minimum data rate of 4 Mbps. However this raised issues, including whether the marginal increased benefits to consumers arising from the imposition of such a requirement could be

[41] 2 Mbps is considered to be the minimum appropriate access line speed to guarantee access to a number of applications, which are increasingly important for participation in the digital society. Examples include fast Internet browsing, social networking, up and downloading of digital music and video clips.

commensurate with the cost to the USP and whether this could be achieved in a more effective fashion. In both cases, it was felt that the benefit in terms of increased data speed for a specific number of users would not be significant in relation to the costs to GO in effecting potentially inefficient 'ad hoc' adjustments. In addition the MCA recognises that there may be other national broadband providers offering comparable connections capable of broadband Internet access throughout Malta in competition with GO.

2.4 Minimum Requirements

To uphold the rights of end-users who require a connection capable of functional Internet access, the MCA proposed minimum requirements that the USP should take account of and against which the MCA would examine complaints should an end-user contend that his/her telephone line is not capable of functional Internet access at the established minimum data rate.

The MCA is of the opinion that any end-user who has serious doubts as to the telephone line capability should be able to obtain a written statement from the USP setting out the capability of their individual line. The USP should establish procedures to measure the access line speed of individual telephone lines and provide such information to its customers.

Where the capability of the line at the network connection point is found to be below the established minimum functional Internet access data rate, the MCA considers that it is reasonable to expect the USP to use all reasonable endeavours to remedy the situation. The MCA would expect that such a scenario would arise in only a small number of cases as requests in respect of telephone lines which do not meet the established minimum data rate would be low.

The consultation paper posed the following question:

Q4. What are your views on the minimum requirements to apply in connection with functional Internet access?

2.4.1 Summary of Respondents' views

GO stated that the MCA's proposals with regard to the minimum requirements for functional Internet access seem designed to place all possible regulatory burdens on GO and absolutely no obligations on the other broadband providers operating in the market. GO cannot understand how this is supposed to be beneficial to the consumer or to the market in general and not lead to significant market distortions.

On the other hand, Melita supports the proposed minimum requirements that should apply in relation to the USP's provision of functional Internet access.

2.4.2 MCA's Response

As already mentioned above, the MCA recognises that the speed and quality of broadband services that are provided by broadband service providers is an important factor for consumers. In order to ensure that broadband operators provide a quality end-to-end broadband service, the MCA will under a separate initiative implement measures to prevent significant disparities between consumers' expectations of broadband performance and their actual experience.

Based on the proposals outlined in the consultation paper and taking into consideration the view expressed, the MCA has established in its decision the minimum requirements that will apply to the USP in relation to the provision of a connection which permits functional Internet access. The requirements also set out the circumstances in which the MCA would expect the designated USP to take remedial action.

The MCA is of the opinion that the establishment of minimum requirements stated in the decision (refer to **Section 3**) achieve the right balance between the interests of users and the impact upon the USP and that the USP is taking a responsible approach in meeting its obligation to ensure functional Internet access.

Issues addressed by the minimum requirements include, amongst others, having regard to the overall target for the total number of telephone lines capable of meeting or exceeding the established reasonable minimum data rate of 4 Mbps, procedures for measuring the capability of individual lines, the provision of a statement of line capability and where the capability of the line is below the minimum access line speed the use of all reasonable endeavours to remedy the situation.

The MCA notes that these minimum requirements may be revised from to time to time to reflect changes in prevailing conditions. The minimum requirements will assist the MCA in monitoring the USO and will benefit users without creating a disproportionate burden upon the USP.

3. Decision

In accordance with Regulation 26 of the Regulations the MCA hereby specifies the following requirements to be complied with by the designated USP for the provision of access at a fixed location (i.e. GO Plc)[42] in relation to functional Internet access.

The effective date of this decision is 1st August 2011.

Requirements in relation to requests for a connection to the public telephone network at a fixed location at data rates that are sufficient to permit functional Internet access:

The USP is required under **Decision 1** of the USO Decision to provide upon request a connection at a fixed location to the public telephone network. Such a connection must be capable of allowing end-users to make and receive local and international calls, facsimile communications and data communications, at data rates that are sufficient to permit functional Internet access.

At the choice of the end-user, the USP is required to provide the above connection at a guaranteed access line speed of 4 Mbps. If the connection does not permit the provision of such broadband Internet access for technical or economical reasons, and no alternative offering is readily available on the market under comparable conditions to the end-user requesting the connection, the USP is allowed to provide the connection at a speed that is lower than the access line speed specified above. In these exceptional cases, the access line speed must not be lower than 2 Mbps.

The USP is required to take the utmost account of the set minimum requirements in relation to functional Internet access when planning network build, providing individual connections to the network and when responding to requests to address service quality.

Minimum requirements to be complied with by the USP in relation to functional Internet access:[43]

The USP must have regard to the overall target of 97% for the total number of installed telephone lines capable of meeting or exceeding the established reasonable minimum data rate of 4 Mbps.

The USP must provide a written statement stating the data carrying capability of a telephone line in response to any end-user who has serious doubts as to the line capability.

[42] Refer to Annex 1 of the USO Decision on Electronic Communications Services published in April 2010 (updated in March 2011) whereby GO Plc is the current universal service designated undertaking for the provision of access at a fixed location.

[43] Refer to Regulations 26(4) whereby the MCA may specify requirements to be complied with by a designated undertaking in relation to functional Internet access, having regard to prevailing technologies used by the majority of subscribers and to technological feasibility.

Where it is not possible on any given line for the USP to achieve the established minimum data rate of 4 Mbps, the USP must tangibly demonstrate that it is in the process of making, or planning to make, improvements to its network (whether equipment, lines or other part) not capable of supporting 4 Mbps.

The USP must establish appropriate management and business processes to:

- measure individual telephone lines and to provide information to end-users by no later than 4 weeks after the effective date of the decision;
- monitor the level of complaints from end-users on connection speeds for functional Internet access and assess the underlying causes;
- identify whether the cause of the speed related problem is within the USP's control and, where it is not, to explain clearly to the end-user the possible causes of the lower speeds and how such problems could be eased;
- monitor the problem through to resolution or until reasonable remedial actions are exhausted or the customer is satisfied with the outcome, where the cause of the problem is within the USP's control;
- provide the MCA with the following reports on a quarterly basis and forwarded to the MCA by not later than twenty (20) working days following the end of each quarter:
    - on its performance in relation to the above-mentioned target and shall publish such details in a format to be agreed with the MCA;
    - concerning the above-mentioned issues, including details of any work programmes regarding improvements to its network to deliver functional Internet access on those lines which are not capable of supporting the established minimum data rate of 4 Mbps; and
    - on the individual location and the number of telephone lines therein which are not capable of supporting the established minimum data rate of 4 Mbps.

Over time, the established minimum data rate for functional Internet access may be revised by the MCA to reflect advances in networks and equipment, prevailing bandwidth used by the majority of subscribers and changing social and economic conditions.

The MCA will monitor the USP's compliance with the established minimum requirements in relation to functional Internet access and reserves the right to take regulatory action in accordance with its powers at law.

The MCA will monitor the robustness of this decision and reserves the right to make periodic adjustments as necessary including modifications to the minimum requirements in consultation with the USP or any other third parties.