

Network Termination Points

Decision Notice 02/08

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1.0 Introduction

The Gibraltar Regulatory Authority (“the Authority”) is responsible for the regulation of the electronic communications sector in Gibraltar in accordance with Gibraltar and EU legislation. The communications sector continues to grow at an extremely fast pace and is playing a critical role in many areas of economic development.

Communications services are delivered using communications networks, whether copper (PSTN), fibre or radio of various kinds. Around the world, it is widely established that these services are a dominant source of revenue for network operators.

Competing operators are currently extending their networks into housing estates where telephony and internet services are provided to the end customer. All this requires is a standard twisted copper pair cable or fibre extending from a fixed point, usually the basement to each and every residence in the building. This infrastructure is currently being used by the incumbent operator, Gibtelecom and spans every residence that subscribes to its service. With the rollout of new networks, alternative operators also wish to provide Internet services to residential customers either by deploying their own in-building infrastructure where it is feasible and space is available or by using the existing in-building wiring via an agreed network termination point.

The Universal Service Directive 2002/22/EC states that,

“The network termination point represents a boundary for regulatory purposes between the regulatory framework for electronic communication networks and services and the regulation of telecommunication terminal equipment. Defining the location of the network termination point is the responsibility of the national regulatory authority, where necessary on the basis of a proposal by the relevant undertakings”.

In the Communications Act 2006, Network Termination Point (NTP) is defined as,

“the physical point at which a subscriber is provided with access to a public electronic communications network and, where it concerns electronic communications networks involving switching or routing, that physical point is identified by means of a specific network address, which may be linked to the subscriber’s telephone number or name”.

On 7th April 2008, the Authority published “Public Consultation 01/08 – Network Termination Points” in which it invited comments from all interested parties on questions relating to all aspects of Network Termination Points.

The Authority received detailed submissions from the four respondents listed below by the close of the consultation period.

- Sapphire Networks
- Gibtelecom
- CTS

- EasyCall

The Authority thanks all respondents for their submissions. Having considered the views of all respondents, the Authority sets out in this document its conclusions regarding the specific issues raised in the Public Consultation.

2.0 Response to Consultation Questions

Question 1: Do you see the need for the Authority to define the network termination point? Please give reasons for your answer.

Views of Respondents

All respondents agreed that the Network Termination Point (NTP) needs to be defined by the Authority. EasyCall, CTS and Sapphire Networks mentioned the fact that the positioning of the NTP significantly affects consumer choice and the promotion of competition and it should therefore be easily accessible to all authorised network operators.

CTS and Sapphire Networks agreed that for buildings in single residential occupation, the NTP should consist of an access point located inside the home where the customer can plug in his own extension wiring and connect to a public electronic communications network. However, for multi-occupancy buildings the NTP should, wherever practical, be located in a suitable room or area where operators can install Network Terminating Equipment and gain access to the entire building.

Sapphire Networks added that just as the local copper loop in the network is not capable of being completely replicated by a new entrant, it was unrealistic to believe that a new entrant could fully duplicate the internal wiring within large buildings. This was one of the reasons why internal wiring was considered as a regulatory "bottleneck".

They proposed that all existing in-building wiring should be transferred to the management and control of the building landlord, given that the wiring may be old and of uncertain quality, that it would be complex and expensive to value it and that the network operator would no longer be responsible for future maintenance liability. It suggested that wherever reasonable, its ownership should be transferred free of charge as occurred in the UK. Once wiring would be under the control of the building owner, some regulation might be needed which prevents or deters the landlord from exploiting this natural monopoly to the disadvantage of network operators and tenants.

Gibtelecom's firm position is that the NTP is the end point of the network as seen from the subscriber's point of view and thus it is logically and legally located in the end-user's premises and nowhere else. They stated that the NTP should not be confused with a point of access or point of connection at which a network operator connects to the in-building wiring system (a local sub-loop in an apartment block).

Gibtelecom explained that regarding the local access network, the NTP represents the limit of the scope of regulation of the local loop under the EU Unbundled Local Loop Regulation 2887/2000. Article 2(c) of the Unbundling Regulation defines the local loop as *"The physical twisted metallic pair 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"*. The NTP also frames a statutory right given to all fixed public network operators to install in-building cables which extend up to the NTP and enables access to end users.

Furthermore, with regards to the NTP, Gibtelecom stated that it is the physical point at which the subscriber is provided access. His connection point is where the incoming wire is still defined as part of the public network, not as part of a private network. This interpretation is reinforced in the Access Directive and the Unbundling Regulation where there is added emphasis that the NTP is at the subscriber's premises. In a multi occupant building, a subscriber's premises is his apartment, not the common areas. The statutory right of every public fixed operator to install wiring in the common parts of the building further buttresses a definition of NTP as being in the end user's apartment and not in any other part of the building.

The incumbent added that while the NTP remains anchored in the end user's premises, an alternative network operator's access to the end user currently serviced by Gibtelecom (including an in-building wiring system provided and operated by Gibtelecom) can be obtained through local loop unbundling or, if a basement multi-distribution frame (MDF) room can be established, through sub-loop unbundling. A connection between the basement room and the end user's apartment clearly falls within the terms of the 2002 Access Directive's definition of the local sub-loop: *"a partial local loop connecting the network termination point at the subscriber's premises to a concentration point or a specified intermediate access point in the fixed public telephone network"*. The basement MDF room qualifies as an intermediate access point in the public telephone network. In other words, the connection in the basement MDF room is the point of access, not the NTP.

Gibtelecom went on to explain two ways in which the GRA can impose mandatory unbundling type access obligations on the in-building cabling provider when the in-building wiring system is owned and operated by a building developer or an alternative network operator and not Gibtelecom.

First, it was suggested that the Authority can carry out a market analysis of the local sub-loop market, housing estate by housing estate, and impose SMP access obligations on the in-building cabling provider in each one. However, such a review would involve much time, effort and substantial cost. The second approach offered was to declare any new building development with only one or two in-building wiring system providers as automatically subject to a mandatory access regime for the benefit of all fixed public electronic communications network operators. Legal authority for this obligation might be found in the facility sharing requirements listed in the Conditions which may be attached to a general authorisation in the Authorisation Directive 2002/20/EC or the remedial powers to impose facility-sharing under Article 12 of the Framework Directive 2002/21/EC. (These have been transposed into Gibraltar legislation in Part A of the schedule of the Communications (Authorisation and Licensing) Regulations 2006 and in Section 52 of the Communications Act 2006 respectively).

Gibtelecom concluded that the best way to give non-discriminatory and ready access would be to handle the transfer of end user connections, where technically feasible, through a point of access in a basement MDF-type facility in the building, such facility built to common industry standards to allow use of the same MDF interconnection equipment in all new building developments in Gibraltar. Such a solution would work for new buildings while older buildings may be problematic due to physical constraints and/or technical difficulties, high costs and inconvenience to the occupants of re-engineering a basement MDF-type facility.

Authority's Position

The Authority agrees that it must define the Network Termination Point of electronic communications networks in Gibraltar as it represents the boundary between what is considered a public electronic communications network and a private one. The definition of its location is the responsibility of the Authority as it has a major impact on the way operators negotiate the provision of services on their networks and is vital for the promotion of competition in the electronic communications sector.

The Authority agrees with Sapphire Networks in that in-building cabling represents a regulatory bottleneck as its duplication within large buildings is a very expensive and lengthy process for new entrants and in some cases physically impossible as some ducts and risers may be restricted or even loaded at full capacity. Sapphire proposed that ownership of all in-building wiring should be transferred, free of charge, from network operators to building landlords as occurred in the UK. In Gibraltar, the telephone department which was historically part of the Gibraltar Government, started laying cables throughout Gibraltar and have since then, through Gibtelecom, been automatically involved in installing, operating and maintaining the network including the cabling within buildings. Ownership of these in-building cables may have never been transferred to the management companies or landlords in Gibraltar and the Authority has no powers under the current legislation to achieve this.

In new buildings, where landlords are more aware of these issues, the developers control and own the in-building cables and are fully responsible for their installation and maintenance. Any operator wishing to gain access to these in-building cables is free to negotiate the terms and conditions with developers or landlords.

Alternatively, it is the Authority's view that if Gibtelecom legally owns the internal cabling in any building, then any operator wishing to gain access to these wires must connect to Gibtelecom's local loop which extends from the local exchange to the subscriber's premises. In this scenario Gibtelecom will own the entire route, the NTP will be located at the customer's premises, and any other operator wishing to gain access to Gibtelecom's network would do so under the terms of its Reference Unbundling Offer.

The GRA also acknowledges Gibtelecom's view that the NTP is the physical point at which a subscriber is provided access and where his connection represents a demarcation point between a public and private network. It also recognises the fact that an intermediate point of access such as a distribution frame located in a communications room may or may not be considered an NTP.

Gibtelecom suggested that in situations where an alternative operator or a building developer owns the in-building cables and the Authority wishes to impose access obligations on them, a market analysis of the local sub-loop market, housing estate by housing estate, could be carried out by the GRA. First of all, the GRA notes that it will be publishing its final decisions of its market reviews within the next few months, which includes an analysis of the Wholesale Unbundled Access (including shared access) to metallic loops and sub-loops market¹. In the Wholesale Fixed Markets

¹ COMMISSION RECOMMENDATION of 11 February 2003 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

Response to Consultation², the Authority already concluded that the only operator which could potentially offer an unbundled local loop product in Gibraltar is Gibtelecom and therefore has 100% of the potential market. Secondly, the Authority would only be able to impose Significant Market Power obligations, under the provisions of sections 38 to 41 of the Communications Act 2006, on an electronic communications operator which has been authorised by the GRA to provide electronic communications networks or services. A building developer would not fall under this category.

With regards to the second approach, the Authority would be able to use the legal instrument in Part A of the schedule of the Communications (Authorisation and Licensing) Regulations 2006 and section 52 of the Communications Act 2006 in order to help another operator to gain access to in-building cables where there already exists one or two cabling providers in the building. However, this legal instrument would only be used if the above situation would arise.

The GRA agrees with Gibtelecom in that the most convenient and effective way of handling the transfer of end user connections would be through a point of access located in a designated communications room, usually located in a basement, where operators can easily adjust line connections between themselves upon the customer's request. This arrangement, if technically feasible, should work for the more recent building developments in Gibraltar, yet the Authority recognises that in older buildings, other more challenging issues arise due the current condition of cables laid, the high costs involved and the complexity of the cabling configuration.

The Network Termination Point is already defined in the Communications Act 2006 as,

the physical point at which a subscriber is provided with access to a public electronic communications network and, where it concerns electronic communications networks involving switching or routing, that physical point is identified by means of a specific network address, which may be linked to the subscriber's telephone number or name".

This means that the NTP is a physical connection point where a person, who is party to a contract with a provider of publicly available electronic communications services, can use the services supplied by that provider. This defines what an NTP is but not where it is located within an operator's network. The reason being that there exists a myriad of different providers each with their own particular network configuration and physical set-up and it would be unwise to define its exact location in every case. An NTP could therefore represent different equipment in different locations. For example in single occupancy buildings, the NTP could be the Network Termination Equipment (NTE) located in the subscriber's premises and for multi occupancy buildings, the NTP could be a distribution point located in a basement communications room.

European Parliament and of the Council on a common regulatory framework for electronic communication networks and services – Market 11.

² Response to Consultation and Notification to European Commission – Wholesale Fixed Markets, Document No. 14/07.

Question 2: Do you agree with the three types of interconnection as mentioned above? Are there any other forms of interconnection available?

Views of Respondents

CTS, Gibtelecom and EasyCall agreed with the three types of interconnection mentioned in the Public Consultation. In addition, EasyCall stated that there is another form of interconnection known as "sharing infrastructure" which could include cable ducts under the streets and antenna masts.

Gibtelecom suggested that there was a fourth type of interconnection for horizontal access which includes interconnection at the distribution boxes on individual floors of a housing estate. Access would be obtained by laying down cables in vertical ducts and other conduits in the building. Even though Gibtelecom acknowledges the existence of horizontal distribution boxes they stated that this did not mean that in places where they are in operation there would be sufficient space to accommodate third parties or install new distribution boxes at a low cost where there were not currently located.

CTS acknowledged that interconnection at telephone exchanges (Type a interconnection) is available but had previously requested interconnection at a distribution point on public streets (Type b interconnection) and was led to believe that this form of interconnection was not available in Gibraltar. It claimed that it did not feature in Gibtelecom's Reference Unbundling Offer unless it was referred to as the various Remote Concentrator Unit locations. CTS did not consider this type of interconnection as public street interconnection.

Sapphire Networks did not agree with the Authority's analysis stating that under the present EU regulatory framework, none of the three types of interconnection is in fact interconnection as defined in the Directives. Since the EU 1999 regulatory review, the definition of interconnection does not apply where one public network connects to a passive copper loop within another operator's network, as the latter facility alone does not comprise a network. This was why, Sapphire explained that, when local loop unbundling was introduced in to the EU regime, it was done via a separate Regulation and did not rely on the provisions of the old Interconnection Directive. Consequently, the 2003 package introduced the wider concept of "Access" which includes all forms of wholesale activity between two network and service providers.

Sapphire describes the first two types of interconnection as proposed by the GRA as Access and with regards to interconnection applicable to in-building wiring systems (Type c interconnection), the connection is not with a public communications network, but the block wiring on the private customer side of the NTP which may or may not be owned by a network operator. Sapphire argued that the EU definition of NTP clearly states that the customer side of the NTP is subject only to terminal equipment regulation and falls outside the regulatory system described by the five Directives.

The EU definitions and texts relating to NTP's do not deal adequately with the fact that the customer side of the NTP may partly comprise block wiring provided by third parties as the assumption is that it is all customer equipment. Sapphire's view is that all wiring on the customer side of the NTP should be under the control of the

customer and not the network operator. It also argued that Gibtelecom is dominant in the supply of block wiring and that the appropriate remedy is not Access but divestiture of the asset to the customer, as occurred in the UK and other EU countries.

Authority's Position

The GRA agrees with most respondents in that there are many forms of interconnection available and that the three types of interconnection mentioned in the public consultation represent a broad categorisation of the different variations that exist.

CTS explained that it was led to believe that interconnection at a distribution point on public streets was not available in Gibraltar. In fact, at the time when CTS requested this type of access, it was not covered in Gibtelecom's Reference Unbundling Offer. This type of access, which involves accessing the incumbent's local access network at a point between the incumbent's site and the end user, has now been recently incorporated in Gibtelecom's RUO and is known as sub-loop unbundling. Gibtelecom's RUO has been submitted as a working draft and the Authority is currently reviewing its terms and conditions together with their associated products and prices.

In response to Sapphire's comments, the Authority would like to clarify that in the public consultation it referred to the concept of interconnection but did not specify its specific meaning. Within this context, the Authority used interconnection in its broad sense which means that interconnection could also mean access. Access has a wide range of meanings which incorporates interconnection as a specific type. For the sake of clarity, the Authority will refer to all types of connection in this Decision Notice as Access which, under the Communications Act is defined as the making available of facilities or services or both by one person to another.

According to the definition provided in Article 2(d) of the Framework Directive,

"Public communications network means an electronic communications network used wholly or mainly for the provision of publicly available electronic communications services".

The main element of this definition appears to be the purpose for which the network is used rather than the question of ownership or location of the network. Moreover, the definition of 'electronic communications service' (Article 2(c) of the Framework Directive) includes the notion of 'remuneration'. Accordingly, if a network, such as in-building cables in this case, is used for providing publicly available electronic communications services for remuneration, then it would qualify as a public communications network.

Under the provisions of recital 6 of Directive 2002/22/EC (Universal Service Directive),

"The network termination point represents a boundary for regulatory purposes between the regulatory framework for electronic communication networks and services and the regulation of telecommunication terminal equipment. Defining the location of the network termination point is the responsibility of the national

regulatory authority, where necessary on the basis of a proposal by the relevant undertakings”.

The Authority agrees that the customer side of the NTP is only subject to terminal equipment regulation and falls outside the scope of the five EU Directives. However, an NRA cannot exempt the last connection to the end-user from regulation simply because it chooses to define the NTP as occurring at a point further up the network unless, the connection terminates at this point and is subsequently routed onwards by a third party. If the in-building cabling is owned by either a fixed operator or the building owner and is used to connect different subscribers (each with their own telephone number from the national number plan or other specific network address), then it should rather be considered as part of the operator's public communications network.

Sapphire also argued that if Gibtelecom is dominant in the supply of in-building wiring that the appropriate remedy would be the transfer of ownership of these cables from Gibtelecom to the customer. The GRA does not agree with this statement as it could impose access obligations on Gibtelecom but has no powers in law to mandate a course of action such as the divestiture of an asset.

Question 3: Do you agree that access to in-building wiring should be available to any operator that requests access? Please give reasons for your answer.

Views of Respondents

Gibtelecom, EasyCall and CTS agreed that access should be available to all fixed network operators as it is critical for fair competition and will grant customers the freedom to change operators easily and without restrictions. CTS explained that all operators need access to both the in-building wiring and to the existing and updated documentation that lists its current usage.

Gibtelecom suggested a two-tier approach which differentiates between the date a building was erected. For buildings erected pre 2001, access presents significant problems as no basement MDF communications room exists as it was not industry practice at the time of their construction. Gibtelecom explains that it currently owns and operates almost all the “boxes” installed in these buildings and the cost of “reparenting” may be so costly as to be prohibitive. Therefore, access at Point C³ in pre 2001 buildings cannot be guaranteed due to physical and technical constraints and these issues must be considered on a case by case basis. This point reiterates their argument that alternative operators have Local Loop Unbundling (LLU) access rights to end users based on the Reference Unbundling Offer (RUO) in such buildings.

For buildings erected post 2001 (the year in which Gibraltar adopted its first telecommunications liberalisation package) access to in-building wiring, regardless of who owns or operates it, should be guaranteed at the basement MDF level (Point C)⁴. Gibtelecom argues that this is the point of access not the NTP which remains at the end user’s premises. In a situation where any network operator owns the in-building cabling, the terms and conditions for access at Point C⁵ should be set out in advance in a RUO document. Alternatively, if the in-building cabling is owned by another party for example a building developer, access should be negotiated on a commercial basis between the parties involved with any disputes being referred to the GRA.

Gibtelecom also stressed the fact that the definition of in-building wiring should include digital cable television wiring systems consisting of coaxial cables which can also be used to carry telecommunications traffic. It therefore follows that access obligations should also be applicable to these systems and operators wishing to connect to in-building cabling should have the choice of whether they wish to connect to the copper wiring or coaxial cabling in buildings where both systems are operational. Under these situations, Gibtelecom added that the digital cable TV system provider should have a RUO document in place which other interested parties can access.

Both EasyCall and Sapphire Networks agreed that the in-building wiring beyond the NTP should always be under the control of the building owner or its tenants.

³ Usually a basement communications room where an operator’s distribution frame connects to the in-building cabling. See Annex A of Public Consultation 01/08 – Network Termination Points.

⁴ See footnote 3 above.

⁵ See footnote 3 above.

Therefore all in-building wiring which is owned by any operator should be handed over to the landlords themselves. Sapphire Networks added that an operator would not need to request access, rather the customer in seeking service from the operator of his choice would be content to provide connection at the NTP between his wiring and that of the network operator.

Authority's Position

In an open and competitive market, there should be no restrictions that prevent undertaking from negotiating access and interconnection agreements between themselves, subject to the competition rules of the EC Treaty.

The Authority therefore agrees with most of the respondents in that access should be available to all network operators to enable fair and sustainable competition which gives the maximum benefit to end-users. Furthermore, in markets where there continue to be large differences in negotiating power between undertakings, and where some undertakings rely on infrastructure provided by others for delivery of their services, it is appropriate to establish a framework to ensure that the market functions effectively.

The Authority also notes that many of the older buildings in Gibraltar, especially those located in Main Street and the Upper Town Area, present significant problems for alternative operators which want to gain access to these in-building cables. The cabling infrastructure together with its ducts and risers may be quite old and of uncertain quality, access to some of its parts may be restricted and maintenance or repairs may be very costly due to the complex arrangement of the in-building cables.

Another factor which plays an important role in this consultation is the lack of a basement or communications room in these old buildings. At the time of their construction, the Government of Gibraltar installed all the telephone wiring in these buildings when competition in the communications industry was unheard of. Gibtelecom's predecessor, Gibraltar Nynex Communications Ltd purchased these cables from the Government and continues to own most or all of these cables.

Gibtelecom stated that access to these cables cannot be guaranteed due to the physical and technical constraints and that access must be considered on a case by case basis. This point reinforces the fact that these in-building cables represent a bottleneck facility which cannot easily be duplicated by new entrants.

For the more recent developments, the GRA agrees with Gibtelecom in that access to the in-building wiring, regardless of who owns or operates it, should be guaranteed at a basement communications room. It is also the GRA's view that if these cables are owned by an SMP operator, then the terms and conditions for access should be set out in a RUO. On the other hand, if the internal wiring is owned by a developer, access should be negotiated on a commercial basis between the parties involved.

With regards to the digital television cables laid down by TV programme delivery suppliers, any communications operator is free to negotiate access to these coaxial cables. It is important to note however, that the GRA cannot mandate any access obligations on these TV programme delivery suppliers as most fall outside the regulatory regime of the Communications Act 2006.

EasyCall and Sapphire suggested that all in-building cables owned by any operator should be handed over to the landlords. The Authority recognises that this may be the ideal solution for competition to flourish but it emphasises that it has no powers in law to mandate this transfer of ownership.

Question 4: Have you encountered any problems with in-building interconnection? If so, please explain what the issues are and suggest how they can be resolved.

Views of Respondents

All respondents mentioned instances in which they had encountered problems. Sapphire Networks stated that the most common problem they had encountered was establishing who owns the in-building wiring. Historically, Gibtelecom have always been responsible for the provision and installation of the cabling in new buildings as they were the only existing operator at the time and Sapphire claim that it has never been clear whether the wiring was installed on behalf of the developers/management or as part of Gibtelecom's own infrastructure.

As a competitor trying to access the in-building infrastructure, Sapphire finds that Gibtelecom always claim that it is theirs as they have installed it and also maintain it and most landlords and developers, who are totally unaware of these issues, always accept Gibtelecom's claim. This makes it very difficult for Sapphire to compete as Gibtelecom are still being provided with information and duct access to a communications room in new building developments such as Tradewinds, Ocean Village and Waterport Terraces.

Although alternative carriers are still experiencing these issues, Sapphire Networks do recognise that some new developments such as Atlantic Suites and Kings Wharf have recognised competition and have installed, or are in the process of installing, their own wiring to a common NTP for use by any carrier as well as provide communications rooms for multiple operators with easy access to the NTP. Sapphire stressed the fact that NTP issues should be resolved in this manner and legislation implemented to ensure that all new developments cater for competition in this way.

EasyCall recalled the fact that they had been hindered from launching various services which from a commercial point of view were unfeasible due to the numerous issues raised in this consultation.

CTS have also experienced similar problems to Sapphire Networks in new developments. CTS explained instances in which both the building developer and Gibtelecom have claimed ownership of the in-building wiring. Following other issues experienced at the Royal Ocean Plaza apartment block, CTS have even suggested re-wiring the entire building onto neutral distribution boxes at their own cost, leaving any operator free to provide any service to the relevant apartment. In situations where insufficient copper pairs exist, another solution offered by this operator was that the same pairs could be shared by different providers. As an example, this would entail Gibtelecom providing voice services down one pair and CTS would provide ADSL services down the same copper pair. This could only be achieved as long as proper operational practices are followed.

Gibtelecom outlined various problems they had encountered in developments such as Ocean Village and Europlaza. With respect to the former, they explained that in one particular instance, CTS had re-routed the internal wiring from a Gibtelecom Distribution Point (DP) on the first floor to the CTS communications box on the third floor without any request or notice being given to Gibtelecom. Gibtelecom stated that the in-building cabling in Ocean Village is owned and operated by them and that

they only became aware that the line had been cut when it conducted a regular test of the line and found it to be dead.

Gibtelecom also stated that they have made a proposal for the management company running the building to purchase all the in-building wiring including the DP boxes located throughout the premises as this would provide the possibility of creating a functional solution with the establishment of a basement communications room for network operators. Lines to individual end users in the building would be able to be switched from one operator to another without disruption or any improper tampering.

In relation to the Europlaza complex, Sapphire Networks are currently negotiating with Gibtelecom a request to establish a common communications room to facilitate access to residents as Gibtelecom also owns the internal infrastructure. Sapphire have also expressed an interest in paying for access to Gibtelecom's internal wiring in other buildings negotiated via commercial means rather than through Gibtelecom's RUO. Gibtelecom claim that their RUO and its terms and conditions should be used where alternative operators want to gain access to Gibtelecom's existing in-building wiring.

With regards to the Atlantic Suites complex, where the in-building infrastructure is owned and operated by the management company, Gibtelecom agrees that access to the internal cabling should be provided on a commercial basis via a common communications room in the basement. This should also apply to all new buildings.

Authority's Position

After considering the respondents comments, the Authority has concluded that one of the main problems with gaining access to in-building cabling is who exactly owns these cables. In cases where an operator has tried to negotiate access to residents in multi-occupancy buildings it has found that it is not clear who to approach as ownership of the in-building cables have sometimes been claimed by two different parties, namely the management company or developer and Gibtelecom.

The Authority has no powers under the Communications Act 2006 to deal with these particular situations as it is up to the parties involved to resolve ownership of cables and ducts or any other similar issues. The in-building cabling could be owned either by operators (which could be made subject to appropriate SMP access obligations) or by the relevant landlord. In the latter case, it could be obviously up to the landlord to decide with which operator to contract for the provision of communications services in the building concerned or the decision could be delegated to individual residents.

The Authority agrees with CTS's comments that where insufficient copper pairs exist, sharing of the same copper pairs could be arranged. This is known as line-sharing and can currently be arranged with Gibtelecom under the terms and conditions in their Reference Unbundling Offer. Gibtelecom can provide voice services and an alternative operator can offer ADSL services over the same line.

The GRA also welcomes Gibtelecom's comments which state that if the management company or developer does not own the in-building cabling, it could be purchased from whoever owned them in order to gain full control of the internal infrastructure.

Once this would be achieved, a basement communications room or equivalent could be established to accommodate different network operators thereby allowing customers to freely choose between providers.

With regards to all new developments the Authority recommends and encourages all developers to include a basement or spare room in which operators can set-up their own point of presence and connect to all cables within the building while negotiating commercially with the landlord the terms and conditions for access to these cables. In these situations, each operator's distribution point would be located side by side in the same room to enable easy access for any new connection, line transfer, maintenance or repair. From the telephone exchange or equivalent facility to this distribution point would be owned by the operator and from the distribution point to the subscriber's premises would be owned by the landlord.

Question 5: Do you agree that installation works for additional infrastructure should be carried out if all existing facilities for in-building interconnection are exhausted? Please give reasons for your answer.

Views of Respondents

Gibtelecom stated that the block wiring provider cannot be forced to build new capacity in existing buildings if the capacity is exhausted. Physical and technical constraints may render such course of action impossible or exorbitant costs may also exist that cannot be borne by the parties on a reasonable basis. What type of installation works needed would ultimately determine whether they would be able to be carried out. If works for additional infrastructure would not be possible and Gibtelecom owned the in-building cables then an alternative operator would rely on the unbundling services as outlined in the RUO.

Under the provisions of EC Competition Law, Gibtelecom reiterated that the owner of a bottleneck facility found to have abused its dominant position under Article 82 might be forced to share his existing capacity but cannot be forced to build new capacity to satisfy the demands of a competitor. Similarly, the [GRA's] regulatory power to mandate access has also been limited, in particular in the Access Directive, to opening up the SMP operator's existing capacity, thereby precluding [the GRA] or a competitor from forcing the SMP operator to construct new capacity.

Both Sapphire Networks and EasyCall agreed that the in-building infrastructure should be under the control of the building owner. Sapphire added that any need to expand the block wiring should rest with the landlord who may or may not seek a financial contribution from the tenants who benefit from it. For new buildings, initial arrangements allowing each operator to provide their own NTP should also be established.

CTS also agreed that installation works should be carried out, but should not be used by operators as an excuse to delay accessing the necessary infrastructure. Independent assessment of whether existing facilities are truly exhausted and the facility for arbitration were also considered to be important to CTS as common sense and fair play must prevail in these matters.

Authority's Position

The Authority will, in all instances recommend that installation works for additional infrastructure be carried out when all in-building access facilities have been exhausted. Where commercially and technically feasible, all operators, together with the building landlords should negotiate the expansion of internal infrastructure in order to accommodate any operator wishing to establish a distribution point within the building and possibly rollout their network alongside other internal cabling systems. The GRA notes however, that in many buildings and in particular the older developments, there are physical and economic constraints which may ultimately restrict the rollout of additional infrastructure. Other complex technical issues and the prospect of severe delays more also deter operators from negotiating the instalment of new cables and the sharing of ducts. Every potential building must be analysed on a case by case basis to determine whether additional installation works can be carried out.

In the case of all new developments, the GRA recommends that developers should take into account the issues above and provide adequate facilities for operators wishing to gain access to residents as it is vital for the promotion of competition and to the provision of better quality products at lower prices.

With reference to Gibtelecom's comment on the obligation to share existing facilities by an SMP operator, the GRA agrees with its point that under the provisions Article 82 EC, an undertaking found to have abused its dominant position cannot be forced to build or install entirely new local infrastructure specifically to meet beneficiaries' requests. In fact, the European Commission developed the doctrine of "essential facilities" whereby a dominant undertaking which both owns and controls a facility or infrastructure to which competitors need access in order to provide services to customers, cannot refuse access to such competitors or grant them access only on terms less favourable than those it gives to its own operations. This doctrine does not mention any need for the undertaking which owns the essential facility to construct new facilities to enable competitor access or even provide types of access which are not within its powers to provide.

Another important point mentioned by CTS was that additional works should not be used by operators to delay access to their networks and that assessment by independent parties as to whether existing facilities had been truly exhausted was also essential for the entire process to be effective. The Authority cannot direct any party involved to carry out an independent survey of internal wiring systems but can intervene if negotiations fail between operators or if extensive delays are experienced.

Question 6: What are your views of the two types of agreements mentioned above?

Views of Respondents

EasyCall stated that Agreement 1⁶ was closer to what they thought should be the right model. They added that in-building wiring should be compulsory in any new building including refurbishments and that the landlords should not be able to make money out of its ownership but rather it must be seen as an essential part of a modern society infrastructure.

Sapphire Networks strongly believed that Agreement 2⁷ was not appropriate as all in-building wiring should be the responsibility of the building owner or its tenants and not any operator. Under Agreement 1⁸, the expected arrangement is that the provision of in-building wiring services is included in the lease, licence or tenancy agreement with the occupants. The network operator does not need to be involved in these arrangements, except that the landlord will be expected to provide reasonable facilities for each network operator to install and have access to the necessary Network Terminating Equipment.

CTS agreed that Agreement 1⁹ is the simplest scenario and provides for the quickest means by which operators can provide services. Just as with TV services, developers can hand over buildings to management companies who can manage and maintain the minimal infrastructure. CTS also explained that in most of the modern and commercial buildings there has already been a room or large riser dedicated to cabling infrastructure but invariably Gibtelecom have claimed exclusive rights of access and use of these spaces. This is the attitude that CTS insists needs changing.

With regards to Agreement 2¹⁰, CTS claimed that it is only workable as long as the pricing structures are valid and demonstrably fair. Existing pricing in the RUO is excessive with tie cables, monthly rentals and one-off charges being overpriced.

Gibtelecom explained that Agreement 2¹¹ should include all network operators and that each operator should have a RUO available in cases where operators may wish to access other operator networks. Gibtelecom emphasised that access to Point C¹² is access to the sub loop which terminates at the NTP in the end user's premises and

⁶ In this type of agreement the in-building cabling infrastructure is solely owned by the building developer and it is free to negotiate the terms and conditions including charges on a commercial basis with all parties involved.

⁷ In this type of agreement one operator owns the in-building cabling infrastructure and leases all or part of this infrastructure to another operator under the terms of a RUO.

⁸ See footnote 6 above.

⁹ See footnote 6 above.

¹⁰ See footnote 7 above.

¹¹ See footnote 7 above.

¹² See footnote 3 above.

insists that other parties seeking access to this sub loop at Point C¹³ must pay all charges in the RUO, including the upfront charge.

Authority's Position

The Authority agrees that the instalment of in-building wiring should be compulsory in any building and that it must be seen as an essential part of modern society and the development of the communications industry. Whether landlords decide if they would want to profit from the ownership of this infrastructure is a private matter which is out of the Authority's control.

With regards to Sapphire's comments, it is the GRA's view that if the developer owns the internal infrastructure including ducts and cables, then network operators should only be involved, if necessary, in the provision, operation and maintenance of the physical infrastructure and associated services. Any cabling ownership disputes are a matter for the parties concerned as the GRA has no powers with regards to this issue.

CTS acknowledged that in most modern buildings, large risers or space dedicated to cabling infrastructure had been established, yet the incumbent had claimed exclusive rights of access to these spaces. The Authority would like to reiterate that ownership of infrastructure and other similar issues cannot be dealt with by the GRA unless the infrastructure is owned by one operator and access is refused to another operator on unjustifiable grounds. As with all agreements, if no commercial arrangement can be reached between the parties concerned, the Authority may intervene and if necessary issue a direction. In case there is any dispute, they may also seek assistance from the Authority for dispute resolution.

With regards to Agreement 2, in which one operator owns the internal cabling and leases all or part of this infrastructure to another operator, the GRA agrees with CTS in that the terms and conditions must be fully transparent and fair. Prices should also be non-discriminatory and objective in order to foster sustainable competition, bearing in mind the need for investment in alternative infrastructure and to ensure that there is no distortion of competition. It is also vital that the operator requesting access does not have to pay for network elements or facilities which are not necessary for the supply of its services.

Gibtelecom stated that each operator should have a RUO available in cases where operators may wish to access other operator networks. The Authority does not agree with this statement as it cannot impose a RUO on any operator which does not have SMP. Under the provisions of the Communications (Access) Regulations 2006, only SMP operators may be required to publish a reference offer that is sufficiently unbundled to ensure that no person is required to pay for facilities which are not necessary for the service requested.

This statement is further reinforced in Regulation No.2887/2000 on unbundled access to the local loop, which states that only notified operators must publish and keep updated a reference offer for unbundled access to their local loops and related facilities. The definition of notified operator for the purposes of this Regulation states,

¹³ See footnote 3 above.

“...operators of fixed public telephone networks that have been designated by their national regulatory authority as having significant market power in the provision of fixed public telephone networks and services...”

Gibtelecom explained that other parties wishing to gain access to its sub-loops would have to pay all charges in the RUO including the upfront charge yet did not offer any reason or justification as to why this should be the case. The Authority therefore stands by its view that the current upfront charge as stipulated in Gibtelecom’s RUO would not apply to Agreement 2 as the co-location room for e.g. building basement where NTP’s are located, would not be owned by any operator, the equipment needed by operators is minimal and the alternative operator would only be leasing a minor part of the other operator’s network.

As mentioned in the public consultation, the Authority would like to reaffirm that the RUO is currently under review and its terms and conditions including prices contained in it may change.

After considering the respondents comments, the Authority will amend the Example of Agreement 2 and add another agreement to the list. The agreements which operators and developers may enter into when dealing with these access issues are as follows:

□ Example of Agreement 1

In this type of agreement the in-building cabling infrastructure is solely owned by the building developer and it is free to negotiate the terms and conditions including charges for access on a commercial basis with all parties involved.

□ Example of Agreement 2

In this type of agreement an SMP operator owns the in-building cabling infrastructure and leases all or part of its infrastructure to another operator under the terms of the Reference Unbundling Offer (RUO).

□ Example of Agreement 3

In this type of agreement a non-SMP operator owns the in-building cabling infrastructure and leases all or part of its infrastructure to another operator. The parties involved would negotiate the terms and conditions including charges for access on a commercial basis.

Question 7: If you have any other issues or additional comments which you would like to raise, please do so under this section.

Views of Respondents

EasyCall suggested the following model to open the market for competition and development:

- One non-profit organisation (NPO) which will control the entire public infrastructure and provide infrastructure to network operators. This organisation should install, maintain and allocate infrastructure to any licensed operator who wishes to use it. "Infrastructure" can mean anything from copper, ducts, interconnection points, antenna masts etc.
- Network Operators will compete on a commercial basis to provide communications services rather than infrastructure to customers. Every provider should have access to the same shared resources which will be available through the above mentioned NPO.
- Customers should be empowered to choose their provider for any required telecommunications services.

EasyCall's moral justification for this structure is that the current infrastructure has been paid by the Government using the tax payer's money and therefore it is only right that everybody should have the chance to benefit from it.

Gibtelecom's position is that the NTP in multi-dwelling building developments should be at the end user's premises, as set out in the legislation previously cited. Furthermore, the NTP and a point of access are entirely different things, with the latter being a point at which a network operator could connect to the in-building wiring system of an apartment block. Gibtelecom can already provide alternative operators with access to the Company's existing in-building wiring and therefore end user's, through the GRA approved RUO.

The Company does acknowledge, however, that a possible way to provide access to in-building wiring would be through a point of access in a basement MDF-type facility in all new building developments in Gibraltar. This solution would not work effectively for older buildings as a result of the many physical constraints, technical difficulties and high costs involved of adapting the existing infrastructure to accommodate access requests by alternative operators. They reiterated that in these cases, access can already be provided through Gibtelecom's RUO.

CTS's fundamental desire is to compete on a level playing field and welcome any decisions and actions that the regulator can take to enable healthy competition. This will only be to the benefit of both business and residential consumers, and ultimately to the benefit of the Gibraltar economy as a whole.

Sapphire Networks expanded its previous comments by referring to the possible backstop regulation required to prevent landlords from exploiting their "bottleneck power" once all in-building wiring would be under their control. Sapphire explained that as customer wiring is outside the EU regulatory framework, the Gibraltar regulations derived from the transposition of the EU Directives cannot be relied upon

for this purpose. These Directives only provide for the regulation of the providers of electronic communications networks and services and in most cases only those providers serving the public as a whole.

Sapphire commented on the fact that this peculiar situation was recognised in the UK during the work on the 2003 Communications Act and led to the insertion in the Act of specific regulations addressed to building landlords. Section 134 of the UK Communications Act is entitled "Restrictions in leases and licences" and in summary provides as follows:

- The landlord cannot unreasonably restrict any tenant's choice of communication provider;
- The landlord cannot unreasonably require tenants to use his own communications services or facilities;
- The landlord cannot unreasonably restrict the way in which apparatus is connected to a network;
- The landlord cannot unreasonably restrict the way in which installation, maintenance, adjustment, repair, alteration or use of apparatus is carried out.

It is not expected that such regulations would need to be invoked except in the most extreme situations. For example, there is no breach of these regulatory principles at universities where students' accommodation charges may include a mandatory charge for Internet access. Such an arrangement is highly likely to be deemed "reasonable".

In the vast majority of cases, the landlord and tenants' interests will be shared and conflict is minimised. This is less likely to be the case if an existing network operator is allowed to continue to own in-building wiring.

Sapphire also added a section on the recovery of costs for NTP and network access reconfiguration. In it, they suggested using the "Myers Principles" to assist the determination of cost recovery for this exercise. The principles can be interpreted as follows:

Cost Causation – The cost is caused at the margin by the desire of a customer to connect to a new operator, or by a new operator wishing to establish a presence in a major office building. In the wider sense the cost is caused by the government's decision to introduce competing networks.

Cost minimisation – If the incumbent operator carries out the reconfiguration arrangements and then recovers its costs from other parties, there would be no incentive to keep costs as low as possible. This suggests that full cost recovery may be inappropriate.

Distribution of benefits – The customer benefits by being able to gain access to competing services. The competing operator benefits by being able to gain new business. The end result is a more competitive market, where all customers and networks ultimately benefit, as competition stimulates efficiency and innovation amongst all operators.

Effective Competition – If costs were wholly borne by the new operator and the incumbent had all its costs recovered from other parties, this would not be conducive to promoting effective competition. Just as the incumbent has to incur some costs of introducing interconnection, as an essential part of a competitive market, so the incumbent should bear the costs of setting up the essential arrangements where efficient access to customers is provided.

Reciprocity – Each network has to provide its own network terminating flexibility point and cross connect it to the customer's existing terminal block. In this reciprocal situation, the cost of providing each operator's facility should be borne by that operator.

Practicality – Given the large number of buildings to be converted, the most practical solution is one where the costs do not have to be calculated and invoiced to other parties. The most practical solution is one where each party absorbs its own costs.

Analysing the above principles and their consequences, Sapphire noted that Cost Causation does not point to a clear solution and neither does Distribution of Benefits. Cost Minimisation, Reciprocity and Practicality all point to each party absorbing their own costs. Effective Competition might suggest that any common costs be borne by the incumbent.

Taking all the principles together suggests that where a customer wishes to take service from a new operator, or new operator wishes to provide facilities at an existing building, each operator should pay the cost of setting up its own terminal blocks. The costs of reconfiguring existing services, i.e. introducing a tie cable and cross connecting the existing terminal block to the new one, should fall to the incumbent operator. Any additions to the in-building wiring would be borne by the building owner and/or tenants.

Authority's Position

The Authority does not agree with EasyCall's model to open the market for competition and development. A non-profit organisation which controls the entire public infrastructure and provides infrastructure to network operators does not exist in Gibraltar. The Authority however, agrees with EasyCall in that every provider should have access to the same shared resources and customers should be empowered to freely choose their telecoms provider.

With reference to Gibtelecom's comments, the GRA does not agree that the NTP should always be at the end user's premises. According to the NTP definition as set out in the Communications Act, the NTP is a physical point identified by a particular address which may be linked to the subscriber's telephone number or name. Therefore, the location of the NTP, in the Authority's view, is dependent on the number of subscribers within a particular building. (Please see Authority's final position for full explanation).

Sapphire referred to section 134 of the UK Communications Act entitled "Restrictions in leases and licences" which, amongst other things, prevents landlords from interfering with a tenant's choice of communications provider, the apparatus connected to the network and the way in which maintenance and repairs are carried out. This would only be relevant where the developer or landlord would be under the full control and ownership of the in-building wiring.

In these situations, the GRA agrees with Sapphire that the in-building wiring falls outside the EU regulatory framework for communications networks and services and that Gibraltar regulations could not be relied upon to prevent landlords from exploiting their "bottleneck power". With this in mind, the GRA and Sapphire also share the same view in that the requirement and use of these regulations is absolutely minimal as conflicts rarely occur between landlords and tenants due to their shared interest in products and services. It is also important to note, however, that in many cases, the in-building wiring would be considered as part of an operator's public network even though the landlord owns it and therefore subject to the Communications Act.

The issue of the recovery of costs for network access reconfiguration was not part of the public consultation and therefore it is not advisable that the Authority mandate any cost recovery methodology within this decision notice. It can however recommend that all parties follow a similar set of principles when dealing with these issues. The Authority will therefore adopt the cost recovery principles suggested by Sapphire Networks as the GRA is familiar with these principles, having considered them in the past and the widely use of them throughout the communications industry.

3.0 Authority's Final Position

When considering all the issues discussed in this public consultation, the Authority must take into account the Communications Act 2006 and in particular the Access Regulations¹⁴. Regulation 6(1) of the Communications (Access) Regulations 2006,

"The Authority shall, having regard to these Regulations and to its objectives as set out in section 19 of the Act, encourage and, where appropriate, ensure adequate access, interconnection and interoperability of services in such a way as to secure–

(a) efficiency on the part of persons operating in electronic communications markets;

(b) sustainable competition between such persons; and

(c) the greatest possible benefit for end-users of public electronic communications services".

According to recital (6) of Directive 2002/22/EC (Universal Service Directive),

"The network termination point represents a boundary for regulatory purposes between the regulatory framework for electronic communication networks and services and the regulation of telecommunication terminal equipment. Defining the location of the network termination point is the responsibility of the national regulatory authority, where necessary on the basis of a proposal by the relevant undertakings".

With the above definition in mind, an NRA cannot exempt the last connection to the end-user from regulation simply because it chooses to define the NTP as occurring at a point further up the network unless the connection terminates at this point and is subsequently routed onwards by a third party. If the in-building cabling is owned by either a fixed operator or the building owner and is used to connect different subscribers (each with their own telephone number from the national number plan or other specific network address), then it should rather be considered as part of the operator's public communications network.

As regards Network Termination Points, according to the Communications Act 2006, the NTP has been defined as

"the physical point at which a subscriber is provided with access to a public electronic communications network and, where it concerns electronic communications networks involving switching or routing, that physical point is identified by means of a specific network address, which may be linked to the subscriber's telephone number or name".

According to this definition, if each occupant of a building (e.g. block of flats) has his own subscription (with an associated E.164 number or equivalent) with the communications provider, then each individual cable leading to that subscriber within the building would be part of the public communications network regardless of who owns it. The NTP in these cases would be located at the customer's premises. If on the other hand there is only one subscriber (with internal management of

¹⁴ Communications (Access) Regulations 2006.

numbers/addresses) in the building, then the in-building cabling would be equivalent to a private switchboard within a single company's offices and hence outside the public communications network. Here, the NTP would probably be located in a communications room or basement facility.

It is therefore the Authority's view that the NTP will comprise one of the following:

- An external Network Termination Equipment; or**
- A single or multi-line internal Network Termination Equipment; or**
- A single or multi-line termination box (Distribution Point); or**
- A frame.**

(b) In single residences, the NTP shall be located in the subscriber's premises.

(c) In multi-occupancy buildings where there is only one subscriber, there would only be one NTP usually located in a dedicated communications room or equivalent facility.

(d) In multi-occupancy buildings where there are multiple subscribers, the NTP would also be located at each subscriber's premises.

The agreements which communications operators and other parties may enter into when dealing with the access issues raised in (c) above are as follows:

- Example of Agreement 1

In this type of agreement the in-building cabling infrastructure is solely owned by the building developer, landlord or management company who are free to negotiate the terms and conditions including charges for access on a commercial basis with all parties involved.

- Example of Agreement 2

In this type of agreement an SMP operator owns the in-building cabling infrastructure and leases all or part of its infrastructure to another operator under the terms of the Reference Unbundling Offer (RUO) approved by the GRA.

- Example of Agreement 3

In this type of agreement a non-SMP operator owns the in-building cabling infrastructure and leases all or part of its infrastructure to another operator. The parties involved would negotiate the terms and conditions including charges for access on a commercial basis. A RUO document may be used if the non-SMP operator has one available and chooses to use it.

Please note that Gibtelecom's RUO is currently being reviewed by the GRA and the terms and conditions including prices may change.

Cost Recovery Methodology

It is important that cost recovery mechanisms are appropriate to the circumstances and the Authority has to make judgements and choices about how the objectives set out in the Communications (Access) Regulations 2006 are met. In particular, the cost recovery mechanism should serve to promote efficiency and sustainable competition and maximise consumer benefits.

The GRA believes that the adoption of a framework in which a common set of principles could be applied would be beneficial in a number of respects particularly in relation to developing consistent approaches in the development of effective competition in Gibraltar.

The six cost recovery principles set out below should provide a firm foundation for the analysis required to meet these objectives. These should provide some guidance and direction to operators.

Cost Causation – Costs should be recovered from those whose actions cause the costs to be incurred at the margin. The purpose of this principle is to ensure that customers and competitors are provided with the correct price signals when making a purchasing decision. Customers will only purchase services when the value they place upon them is at least as large as the resource costs of creating them. In the absence of externalities, this will lead to efficient purchasing decisions and the benefit to all customers will be maximised.

Cost minimisation – The mechanism for cost recovery should ensure that there are strong incentives to minimise costs.

Distribution of benefits – Costs should be recovered from the beneficiaries especially where there are externalities. An externality is a cost or benefit accruing to party B due to a decision by party A that does not take account of the external effects on party B. There are two issues addressed by the distribution of benefits principle. The first is the issue of equity, in that it is reasonable for those who benefit from a service to contribute to the cost of that service. The second is the issue of economic (allocative) efficiency in the presence of externalities.

Effective Competition – The mechanism for cost recovery should not undermine or weaken the pressures for effective competition. This can provide a rationale for moving away from a cost recovery system that solely reflects cost causation and distribution of benefits.

Reciprocity – Where identical or similar services are provided reciprocally, it may be appropriate for the charges also to be reciprocal. This principle may provide a useful mechanism for inter dependent network businesses such as wholesale telecommunications services where reciprocity is seen as a normal commercial outcome were the market in question to be effectively competitive.

Practicality – The mechanism for cost recovery should be practical and relatively easy to implement but this should not provide a strong steer as to the appropriate cost recovery mechanism. For example, while a cost recovery system where each party bears its own costs may be the simplest to implement, the practical difficulties

with implementing any other more appropriate cost recovery system may not be significant.

Upon examination of all the principles collectively, the Authority recommends that each network provider should pay the cost of setting up its own distribution points or NTP's. With regards to the reconfiguration of existing services i.e. when a customer requests the services of another operator, the costs of connecting to a new distribution point should also be shared between both operators.