

# **VIRTUAL UNBUNDLING LOCAL ACCESS**

## **Annex B1**

### **VULA FTTP Connection**

### **Description**

#### **GO p.l.c.**

This Reference offer for Virtual Unbundled Access to the FTTP network and collocation related facilities is published in accordance with the Malta Communications MCA Final Decision Market 4 – Wholesale Unbundled Infrastructure Access Market dated 6th March 2013 in line with Regulation 12(2) of the Electronic Communications Network and Services (General) Regulations (Chapter 399.28 of the Laws of Malta).

Undertakings are advised that the Malta Communications Authority may impose changes to this Reference Offer in accordance with its powers under Regulation 12(4) of the Electronic Communications Network and Services (General) Regulations (Chapter 399.28 of the Laws of Malta)

v 10.04.15



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## **1 Introduction**

This document describes the VULA FTTP Connection as part of the RO. The information is being provided on the basis of GO's knowledge at the time of signing of the Agreement and is subject to change.

## **2 Product Description**

This product is being offered by GO to the OAO as part of the RO.

This document describes GO's VULA FTTP Connection product where GO has already installed a FTTP network "**Homes Passed**". More specifically, Homes Passed means the potential quantity of premises that may be connected to the GO fibre network without the further installation of substantial cable plant such as feeder and distribution cables to reach the area where a potential new subscriber is located. A necessary condition for premises to be considered as Homes Passed is that the Optical Distribution Point (ODP) intended to serve those premises has already been installed.

## **3 Key Characteristics**

### **3.1 The VULA-FTTP Service Product Description**

The VULA-FTTP Connection is a broadband service for an OAO. It provides an OAO with a link from the HP within GO's handover exchange site/ s to an Ethernet port on the ONT at User premises.

At the HP/ s as listed at Annex G, GO presents a 10 Gbps cable connection from an Ethernet switch through which the OAO can access and manage the User services.

Unless already installed, a GO technician or a technician working on behalf of GO - "**Technician**", will have to visit the User's premises "**Premises**" to install a VULA-FTTP Connection to and inside the premises. This consists of a fibre strand running from the ODP outside the Premises to the ONT installed inside the Premises. The technician will install the fibre and the ONT inside the Premises, connect the fibre to the ONT, power the ONT, test the setup and record the test results. The User has to be present on site for the whole duration of the installation and testing.

The ONT represents GO's network and the service demarcation point. The OAO is responsible for installation of devices beyond the ONT. These could consist of the OAO's router as well as the User's computer or other device.

There will be one Ethernet port per ONT except when the User requires more than one OAO in the same premises, in which case GO retains the option to install, at no additional cost to the OAO, a multiple port ONT.

The VULA FTTP Connection enables GO to offer multiple services including Multicast as explained in more detail in the technical document at Annex C1.

### **3.2 Target Markets**

The VULA FTTP Connection is intended for both the consumer and small business markets.

### **3.3 Existing GPON Network**

Requests for VULA-FTTP Connections can only be taken for areas defined as Homes Passed in accordance with the definition in Section 2 above.

Requests for VULA-FTTP Connections may also be taken for areas defined as "**Semi-built**", which cover premises that would become Homes Passed upon the installation of the Optical Distribution Point (ODP) intended to serve such premises. Such requests may be met subject to the provisions in Annex E3.

### **3.4 Network Monitoring and Fault Clearance**

GO has a 24/7 NOC to monitor the performance of the FTTP network in real time. Real time monitoring and management of the network enables GO to possibly identify and clear faults before the Service is negatively impacted.

When remote fault resolution is not possible, GO will attempt to repair faults as soon as possible and in a non-discriminatory manner. Any such faults shall be dealt with and resolved as per the fault reporting and fault resolution procedure spelt out in Appendix 3 of Annex E2 and any applicable Service level as contained in Annex E3..

### **3.5 Order Changes and Cancellations**

An OAO can change or cancel an order, without penalties, up to two (2) days before the User committed installation date.

### **3.6 Termination of Service**

An OAO that wishes to terminate a VULA-FTTP Connection shall do so in writing, giving at least thirty (30) days prior notice. GO will disconnect the virtual link from the HP. GO retains the option to disconnect and/or remove the ONT at the Premises.

If a contract for a VULA FTTP Connection between GO and the OAO is terminated before the minimum contracted period expires, where such minimum contract period will have been agreed upon and contracted in advance, the OAO will be liable to pay the full charges due for the remainder of the term in addition to any standard termination charges and/ or minimum order quantities as pre-agreed between the Parties.

## **4 Product Data Rates**

The profiles of the VULA-FTTP Connections are outlined in Annex B2.

## **5 Add-Ons**

### **5.1 Managed Installation**

As explained in Section 3 above, a Technician will install the fibre and ONT inside the Premises where required. The location where the ONT will be installed will be discussed with the User; however the length of the fibre tail from the entry point in the premises to the ONT must be less than 30 metres. GO may opt to install longer lengths at an additional charge as set out in Annex D. The ONT can either be installed firmly fixed on a wall or placed on a desk or table using the provided stand, again as discussed with the User. The final decision where and how the fibre and ONT will be installed shall be at the discretion of the Technician.

On completion of installation, the ONT will be powered up and the Technician will run a test on the line to confirm that the VULA FTTP Connection is functioning properly. The installation and testing of any OAO routers and User devices beyond the ONT are outside the scope of GO's responsibility and the Technician shall not be approached to connect and/or test any of the OAO routers and User devices beyond the ONT.

## **5.2 Shifting of an ONT**

Once installed the ONT is not meant to be shifted. However there may be instances when a User would want to shift an ONT to a different location inside the Premises. This can only be carried out by a Technician against the applicable charges as set out in Annex D. To this effect, the OAO shall follow the agreed procedure between the Parties.

The same rules applicable to the installation of an ONT shall apply to the shifting of an existing ONT as well.

## **6 Lead Times**

GO will adopt the lead times specified in Annex E3. It is understood that these lead times will be offered in a context where field experience with FTTP installations is at an early stage and is expected to remain so for the medium term. The lead times in Annex E3 may change if and when there is significantly better field experience in FTTP installation.

## **7 Network**

### **7.1 VULA-FTTP Architecture**

The OAO shall connect to a 10 Gbps optical interface inside the HP exchange via a Layer 2 switch connected to the GPON OLT. Each OLT will typically feed a maximum of thirty two (32) VULA FTTP Connections, each of which may be connected to an ONT at Premises. Splitter specifications may vary on a case by case basis.

### **7.2 Handover Point**

The HP will be situated in GO's at exchange site/s listed at Annex G.

### **7.3 Optical Network Termination**

The ONT terminates the GPON at the Premises. The service and network demarcation point of the GO VULA FTTP Connection is the Ethernet port on the output side of the ONT. GO shall retain ownership of the ONT. Each VULA-FTTP Connection at a Premises shall accommodate only one gateway installed by the

OAO or the User connected to the Ethernet port. However, there may be exceptions, such as when a User requires services from more than one OAO in which case GO retains the option to install a multiple port ONT and allocate a separate Ethernet port on the ONT for the exclusive use of each service provider.

The ONT requires an AC mains supply and it is the responsibility of the OAO to ensure that an AC socket outlet is installed in the close proximity of the ONT. A User shall leave the ONT permanently powered to avoid losing the service.

## **8 FTTP Coverage**

GO will supply periodic information to an OAO, in commercial confidence and on a need to know basis, on Homes Passed. On the tenth day of every month or the next available working day when the tenth day falls during a non-working day, GO will provide an updated list of Homes Passed that will include also the newly passed homes from the first to the last calendar day of the month prior to that of the date of update.

## **9 Pricing**

Pricing information is given in the Pricing Document at Annex D.

### **9.1 Connection Charges**

Connection charges as defined at Annex D shall be billed in the first month after the installation has been handed over to the OAO.

### **9.2 Rental Charges**

Rental charges as defined at Annex D shall be billed on a monthly basis and in advance. The month during which the service has been handed over is charged prorate.

## **10 Additional Information**

### **10.1 Quality of Service**

The quality of service “**QoS**” available will be as specified in the Service Level Agreement at Annex E3. QoS is based on one (1) service VLAN per service per OLT per OAO.

### **10.2 Other Charges**

GO shall charge the OAO the applicable charges as listed in Annex D where a site visit by a Technician is aborted as a result of the User failing to provide access to the Premises, is absent or is not ready for the fibre and ONT installation, including but not limited to the failure by the User to provide a power outlet near the ONT installation site.

### **10.3 Problem Escalation**

Complaints handling and escalations are as specified in Annex E1 High Level Operations and Planning Manual.