



Addendum to Bitstream Fiber GPON

# Bitstream Fiber GPON: introduction of the 1-port GPON ONT

Communicated to BIPT on 14/10/2021

Sensitivity      **Confidential**

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## 1. Purpose

In order to overcome the recent announcement of a global shortage in chipsets used in the 4-ports GPON ONT, a new 1-port GPON ONT version will progressively be introduced, as fallback solution, in the Proximus network and used for Fiber GPON installations at end-user premises.

The present addendum is communicated to the BIPT in order to update the reference offer of Bitstream Fiber GPON to introduce this 1-port GPON ONT.

More details and a planning regarding the process updates linked to the usage of this 1-port GPON ONT will be provided in a next addendum.

## 2. Scope & planning

This addendum is applicable to the Bitstream Fiber GPON services (with shared VLANs, Dedicated VLANs and Single VLANs), as described in the related reference offer.

The present addendum has been communicated to the BIPT in order to become effective as from **01/11/2021**<sup>1</sup> at the earliest.

<sup>1</sup> Proximus might postpone this date in order to guarantee the quality of the deliverables

### 3. **GPON ONT 1-port introduced in the network**

The first 1-port devices will probably be installed as from the beginning of November this year. 4-ports GPON ONTs, as long as they are available, will continue to be installed for the end-users of the Wholesale customers when the status of the Living Unit is not yet Home Connected.

### 4. **Ordering and provisioning process**

This update does not have any impact on the ordering process, nor on the communication flows during the ordering and provisioning of the updated Fiber GPON services.

Concerning the migration of a GPON end-user activated on a 1-port GPON ONT towards a Wholesale customer, the current Change Operator process will be applicable in remote mode. The corresponding fee will be implemented for invoicing

In order to minimize at its maximum the interruption between the remote execution of the Change Operator in the systems and the installation of the CPE by the OLO technician, we are looking for a structural solution that would allow the OLO technician to trigger the activation of the change operator only when he is on site to install the CPE.

More details and a planning regarding this process update will be provided in a next addendum.

### 5. **E-Tools**

The adaptation of the documentation in the systems and customer interfaces (pre-checks) to only show one UNI for the 1-port GPON ONT is planned to be delivered in the IT release of February 2022<sup>2</sup>.

### 6. **Fault reporting and repair process**

This update does not have any impact on the fault reporting and repair process, nor on the communication flows during the fault reporting and repair process of Fiber GPON services.

<sup>2</sup> Proximus might postpone this date in order to guarantee the quality of the deliverables

## 7. Pricing

The fee for the Installation Method "Remote" will be implemented for the Change Operator order action as from 01/11/2021<sup>3</sup>.

<sup>3</sup> Proximus might postpone this date in order to guarantee the quality of the deliverables

## 8. Impact on the regulated offer

### 8.1 Adaptations on the Bitstream Fiber GPON documents

The sections of the Bitstream Fiber GPON offer documents which are impacted by this addendum are indicated in the subsequent paragraphs (changes are highlighted in pink). These adaptations refer to the Bitstream Fiber GPON reference offer (version 4), approved by the BIPT on 21/05/2021.

#### 8.1.1 Adaptations to be implemented as of 01/11/2021<sup>4</sup> at the earliest

##### Main Body

In section 5.7.3 Optical Network Terminal and Service Box :

The Optical Network Terminal (**ONT**), connected to the ONTP, is an optical modem. It's an active network element managed via the OLT and it's a part of the Proximus network.

The ONT is managed by GPON in-band channel, called **ONT Management and Control Interface (OMCI)** as defined in ITU-T Recommendations G.984.

Depending on the Proximus engineering design, the **GPON ONT with four ports** will get one of the two functionalities described hereafter:

- Shared ONT aims to connect up to 4 IPs in the context of an MDU with ethernet vertical cabling.
- Multiple Service ONT aims to activate different services from different operators by IP.

**The GPON ONT with one port will get maximum one IP address and will deliver one service from one operator.**

Depending on the minimum Installation Method required to perform the activation, the ONT will be installed by a Proximus or Partner Technician in the Living Unit (**for 1-port or 4-ports GPON ONT**) or in the technical room (for Shared ONT).

The access to the high bandwidth at End-User premises will be at the ONT Ethernet port, which is the Proximus network demarcation point, where the Beneficiary or the Beneficiary's End-User will connect its LAN or its Service Box. The **Service Box** will be provided, installed and connected to the ONT<sup>5</sup> by the Beneficiary or the Beneficiary's End-User, according to the requirements set forth in Annex 2, "Technical Specifications", section "Service Box".

<sup>4</sup> Proximus might postpone this date in order to guarantee the quality of the deliverables

<sup>5</sup> Proximus recommends the use of an UTP cable, minimum CAT6.

In section 8.1 UTAC, UNI, UTAC/UNI :

The **UTAC** is the identifier of the **fibre terminating on the Optical Network Termination Point** [ONTP] or the BDFO (Building Distribution Frame Optical used in some SDU/MDU), part of the Fiber GPON access network. Only 1 Optical Network Terminal [ONT] can be connected on this fibre.

The UTAC is allocated when the fibre is designed by Proximus engineering to be terminated on a certain Living Unit located at a certain installation address. The UTAC is independent from the services provided on the Fiber GPON access.

Its format is described below:

**GS1 Company Prefix > < Individual Asset Reference >**

X1... X7

X8... X18

54 **13729**<sup>6</sup>

9 999 999 999 X

UTAC examples: 54 1372 9000 0000 0012, 54 1372 9000 0000 0029

UTAC is the unique identifier of the Wholesale Termination Product.

The **UNI** is the identifier of the **Ethernet port** on the ONT.

Then, for a given End-User, 1 Ethernet service will be provided on 1 UNI of the ONT connected on the "terminated" fibre identified by 1 UTAC.

UNI format is x-y where x = slot (always 1) and y = port (1, 2, 3 or 4)

UNI example: 1-1, 1-2, 1-3 or 1-4.

The UNIs for the 4-ports GPON ONT are : 1-1, 1-2, 1-3 or 1-4.

The UNI for the 1-port GPON ONT is 1-1.

The UTAC/UNI is the combination of the two here-above mentioned identifiers (UTAC & UNI) and refers to the Fiber GPON installation point ID. This combination can be used by the Beneficiary as a substitute to the detailed installation address for the provide-like order types.

In the context of a Multiple Service ONT, the first free UNI of the IP must always be used for a new activation.

## Annex 2 - Technical Specifications

### In section 10 Typical power requirements:

<sup>6</sup> X1...X7 always remains fixed as

54 is the identifier of Belgium.

13729 is the identifier of Proximus PLC under Belgian Public Law.

The ONT is powered by 230V AC.

GPON ONT 4 ports version deployed before November 2018:

- Power Idle (ranged and no Eth connections): **4.8 W**
- Power max (UNI running traffic): **7 W**

GPON ONT 4 ports version deployed since November 2018:

- Peak Power consumption: **4.2 W**
- Minimum power consumption: **2.9 W**

GPON ONT 1 port version deployed since November 2021

Remark: the information is based on the vendor product guide and has not been measured in Lab:

- Peak Power consumption: **2.5 W**
- Minimum power consumption: **2.2 W**

## Annex 5 – Pricing, Compensations and Billing

In section 2.3.3.1.4 Other scenarios of migration to Bitstream Fiber GPON (Change Operator and Migrate)

:

The following tariff is applicable to the Beneficiary requesting a migration in accordance with the scenarios of migration to Bitstream Fiber GPON presented in the following table.

Migration fee per line	Price
Change Operator and/or Migrate to Bitstream Fiber GPON for the Installation Method "With Customer Visit"	€79,02
Change Operator and/or Migrate to Bitstream Fiber GPON for Installation Method "Remote"	4,64€

For scenarios other than specified above, the provisioning will be realized in two steps: the first will be the deactivation of the previous situation and the second one the activation of the new situation. Therefore a cease fee will be billed to the Beneficiary of the previous situation and an activation fee will be billed to the Beneficiary of the new service. In case of a product modification within the installed base of a Beneficiary, the same Beneficiary will be billed the cease fee and the activation fee.

\*\*\* End of the document \*\*\*