



Addendum to Bitstream xDSL and BRUO

Improved Test de Bonne Fin [TBF] process for VDSL2 lines

Approved by BIPT on 18/02/2019
Sensitivity: **Unrestricted**

Table of contents

1. Purpose	3
2. Scope of this addendum	3
3. Planning	3
4. Glossary	3
5. Operational impacts	4
5.1 Provisioning.....	4
5.2 Repair.....	4
5.3 E-Tools	4
5.4 TBF	4
5.5 Pricing	4
6. Adaptation on the BRUO and Bitstream xDSL documents	5

1. Purpose

In order to optimise the current operations on VDSL2 lines, Proximus improves the Test de Bonne Fin [TBF] process for VDSL2 lines with stubs.

The purpose of the present addendum is to address the impacts on the BRUO and Bitstream VDSL2 reference offers of the review of the TBF process with the introduction of the following improvement:

Proximus will no longer systematically apply a Basic Connectivity Profile on VDSL2 lines with stubs, but the TBF process will assign the best possible line profile.

The present addendum describes the impact of this improved TBF process on the Wholesale reference offers of Proximus.

2. Scope of this addendum

This addendum is applicable to the BRUO and the Bitstream VDSL2 services (with shared and with dedicated VLANs), as described in the related reference offers.

3. Planning

The present addendum has been submitted for approval to the BIPT in order to become effective as from 17/06/2019¹.

4. Glossary

- **TBF**: Test de Bonne Fin. The “Test de Bonne Fin” aims to better detect wrong VDSL2 installations and obtaining a better quality of service of the VDSL2 lines.
- **WSO**: Wholesale Service Ordering portal.
- **WSR**: Wholesale Service Repair portal. (This tool will replace the e-Troubleshooting tool for creation of repair cases and planned work notifications.)

¹ Proximus might postpone this date in order to guarantee the quality of the deliverables

5. Operational impacts

5.1 Provisioning

The changed TBF process does not have any impact on the ordering process, nor on the communication flows during ordering and provisioning of new Bitstream VDSL2 lines.

5.2 Repair

The Proximus web repair application - WSR – will provide the needed information allowing OLOs to check the presence of stubs on VDSL2 lines. The changes in WSR will be updated in a next version of the user guide which will be made available in due time.

5.3 E-Tools

The changed TBF process does not have any impact on the WSO pre-check tools (WSO GUI and SOA ordering interfaces).

5.4 TBF

With the changed TBF process, **Proximus will no longer systematically apply a Basic Connectivity Profile for VDSL2 lines with stubs, but the TBF process will assign the best possible line profile.** However VDSL2 lines with stubs will be reported as faulty and must be fixed.

NB: The TBF remains a mandatory test when connecting a new CPE for the first time on a Bitstream VDSL2 circuit.

5.5 Pricing

The changed TBF process does not have any impact on the pricing conditions of the BRUO and Bitstream VDSL2 offers.

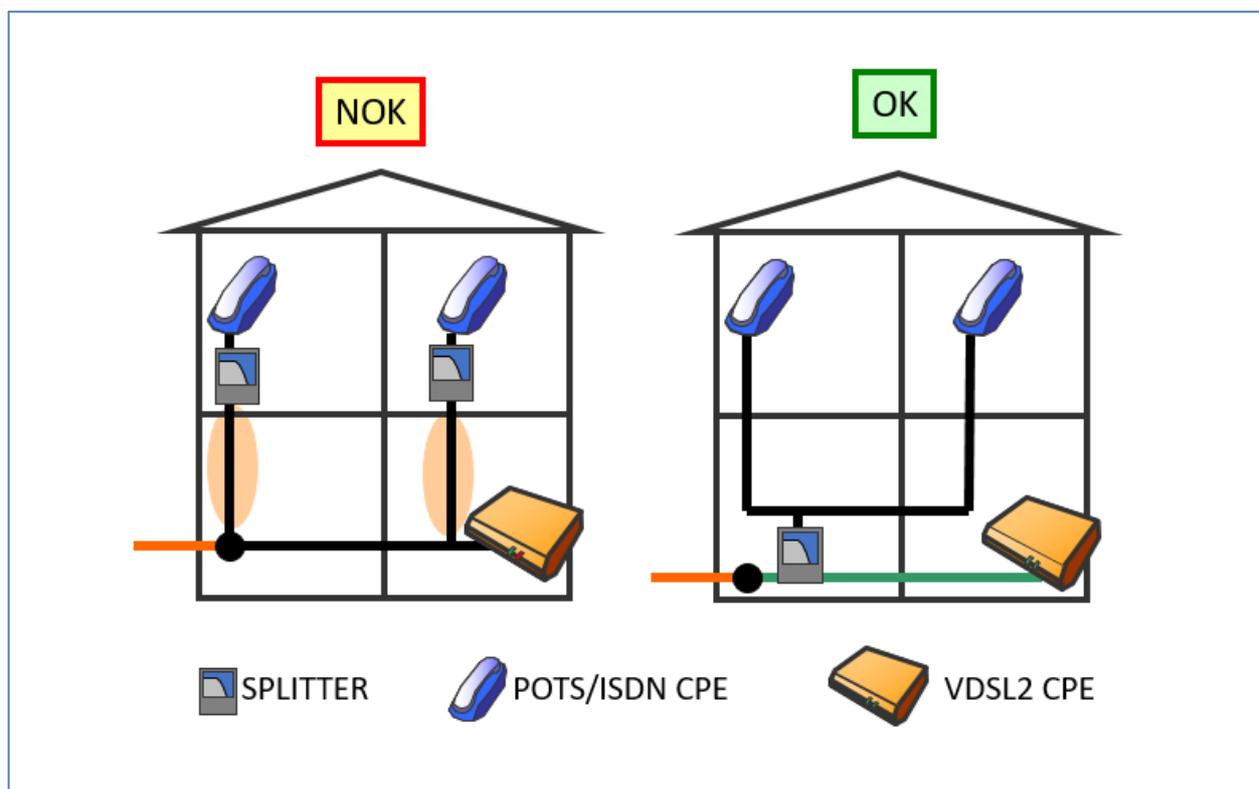
6. Adaptation on the BRUO and Bitstream xDSL documents

The sections of the BRUO and Bitstream xDSL offer documents which are impacted by this Addendum are indicated in the subsequent paragraphs (changes are highlighted in grey). Those adaptations refer to the consolidated version of the BRUO reference offer (version MSO & Servicing), published on the Proximus website, at https://www.proximus.be/wholesale/en/id_bruo/public/access/regulated-services/bruo.html, and the consolidated version of the Bitstream xDSL reference offer (version MSO & Servicing), published on the Proximus website, at https://www.proximus.be/wholesale/en/id_bitstream_xdsl/public/access/regulated-services/bitstream-xdsl.html.

Proximus Raw Copper and Shared Pair Products - Annex C Technical Specifications

In section 5.1 VDSL2

36. Stubs in the customer premises internal cabling (i.e. star configuration or pairs connected in parallel to connect the different rooms of a household) may make the Upstream Power Back Off mechanism fail to perform correctly. In such conditions one VDSL2 line could disturb the other VDSL2 lines by sending too high upstream power. Therefore upstream bands U1 and U2 are not allowed if at customer premises there is not it's recommended to have one direct path without any stub between the introduction point and the VDSL2 NT (modem). As illustrated in the figure below, in case of POTS or ISDN overlay, this condition requires that a centralized splitter shall be used (= no distributed splitters for full spectrum VDSL2).



Proximus Reference Offer for Bitstream Access - Covering the technology VDSL2 - Annex 7: Roles & Responsibilities throughout the OLO CPE lifecycle

- In the Appendix 3: Additional Information on Proximus "Test de Bonne Fin"

Each TBF is based on several test iterations:

1. The first iteration (~15 minutes) will give a PASS/FAIL status:
 - o If the line has some stubs or other important defaults (mostly reported thanks to the Hlog analysis), the line will be reported considered as faulty and must be fixed, but the TBF process continues with step 2 the Basic Connectivity Profile will be activated.
 - o If the line seems to be correct, the test will continue with step 2.
2. The next wave of iterations (every ~2 days) will collect data from the DSLAM. The TBF requires 4 days of data (CPE up with traffic) to finish. That's why the TBF can take up to 10 days (fixed limit) to complete.
3. Once the TBF is over, based on all information collected, the Line Profile is then chosen by the Proximus "Repair Profile Algorithm" and activated automatically on the line.

- In the Appendix 4: External TBF service high-level description

The Beneficiary has one additional (optional) step in the process to specify the line profile desired:

1. At least a TBF should have been recently launched on the line;
2. The line shall not be flagged as being a potential disturber or having the Basic Connectivity Profile or the fall back profile assigned;
- ~~3. If the TBF result is the Basic Connectivity Profile, the Beneficiary will NOT be able to choose any other profile. A repair action must be performed first by the Beneficiary.~~
- ~~4. If a vectoring profile or the fall back profile is active on the line, the Beneficiary will NOT be able to choose any other profile.~~
- ~~5.3. If not, the Beneficiary will be able to choose any other line profile from the same Provisioning Group (30Mbps, 20Mbps, 16,5Mbps or 12Mbps).~~

*** End of the document ***