



Addendum to WBA VDSL2

Update of “QoS at UNI” for dedicated VLANs

Approved by BIPT on 09/02/2017
Sensitivity Unrestricted

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1. Purpose

In order to improve the behaviour of the traffic on dedicated VLANs, a new more robust behaviour has been implemented as announced in Flash nr 3130 that was sent on 8 November 2016.

The adapted policing behaviour for frames flagged with p-bit values of non-ordered QoS classes needs now to be included in the WBA-VDSL2 reference offer.

The present addendum is now submitted to the BIPT in order to update the technical specifications of the reference offer of WBA VDSL2 to reflect these changes.

2. Scope & planning

This addendum is applicable to the WBA VDSL2 services with dedicated VLAN as described in the prevailing Reference Offers approved by BIPT.

The present addendum has been submitted for approval to the BIPT but is already effective as outcome of the actions performed as described in Flash nr 3130.

3. Description of the updated policing behaviour

The new retagging rules are different for “Layer 2” and “Layer 3” dedicated VLANs:

“Layer 2” dedicated VLANs

Ethernet frames with non-conforming p-bit values are now retagged to the lowest priority as defined in the VLAN profile instead of the previous behaviour of policing (i.e. dropping) most of the frames flagged with p-bit values of non-ordered QoS classes.

As an example: application of this rule to a single p-bit Layer 2 VLAN profile implies that all frames will carry this single p-bit value.

“Layer 3” dedicated VLANs

Layer 3 IP-packets with non-conforming “precedence or DSCP” values (i.e. “precedence or DSCP” values without associated bandwidth in the VLAN profile) are no longer remapped to the corresponding Ethernet p-bit value: the p-bit of these Ethernet frames, which carry the Layer 3 IP-packets as payload, are now tagged to the lowest priority as defined in the VLAN profile instead of the previous behaviour, which mapped the p-bit value from the corresponding “precedence or DSCP” value, of policing (=dropping) most of the frames, with mapped p-bit values on non-ordered QoS classes.

As an example: application of this rule to a single “precedence or DSCP” value Layer 3 VLAN profile implies that all Ethernet frames will carry this single p-bit value but the “precedence or DSCP” values of the transported IP-packets remain unchanged.

Remark:

WBA VDSL2 dedicated VLAN customers who tag the p-bit of their Ethernet frames, or the “precedency or DSCP” field of their IP packets, corresponding to the ordered QoS classes are not subject to notice any difference by these changes.

4. **Ordering and provisioning Process**

This update on policing behaviour does not have any impact on the ordering process, nor on the communication flows during ordering and provisioning of new WBA VDSL2 services.

5. **E-Tools**

This update on policing behaviour does not have any impact on the inquiry tools.

6. **Fault reporting and repair process**

This update on policing behaviour does not have any impact on the fault reporting and repair process, nor on the communication flows during reporting and repair process of WBA VDSL2 services.

7. **Pricing**

This update on policing behaviour does not have any impact on the current pricing conditions as defined in the reference offer for WBA VDSL2 services.

8. Adaptation on WBA VDSL2 documents

The sections of the WBA offer documents which are impacted by this Addendum are indicated in the subsequent paragraphs and are highlighted in **turquoise**.

Those adaptations refer to the consolidated version of the WBA offer (WBA VDSL2 reference offer version 14), published on the Proximus website, at http://www.Proximuswholesale.be/wholesale/en/jsp/dynamic/product.jsp?dcrName=nws_wba_vdsl2, approved by BIPT on 10/10/2016.

WBA Annex 2 - Technical Specifications

In section 7.5.2. Dedicated VLAN

Proximus will update in this section the current QoS-behaviour, which is described as the policing of Ethernet frames flagged with p-bit values of non-ordered QoS classes, with a retagging of these frames to the p-bit value of the lowest ordered QoS class (i.e. p bit-values without associated bandwidth in the configuration of the concerned dedicated VLAN profile), both in upstream and downstream.

The following text will be inserted between the last two paragraphs:

The VLAN profile is policing all Ethernet packets of the dedicated VLAN and cannot differentiate following eg C-tag.

Some retagging rules are applied differently for “Layer 2” and “Layer 3” dedicated VLANs.

For “Layer 2” dedicated VLANs:

Layer 2 frames with non-conforming p-bit values are retagged to the lowest priority as defined in the VLAN profile.

As an example: application of this rule to a single p-bit Layer 2 VLAN profile implies that all frames carry this single p-bit.

For “Layer 3” dedicated VLANs:

Layer 3 IP-packets with non-conforming “precedence or DSCP” values (i.e. “precedence or DSCP” values without associated bandwidth in the VLAN profile) are not remapped to the corresponding Layer 2 p-bit value: the p-bit of these frames, which carry the L3 IP-packets as payload, is tagged to the lowest priority as defined in the VLAN profile.

As an example: application of this rule to a single “precedence or DSCP” value Layer 3 VLAN profile implies that all Ethernet frames carry this single p-bit value but the “precedence or DSCP” values of the transported IP-packets remain unchanged.

It is the responsibility of the OLO to underbook, match or overbook the instantaneous available physical bandwidth on the VDSL2 line (upstream and downstream). It is recommended not to overbook higher QoS bandwidths (P5, P3, P1).

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