

## OsmoPCU - Bug #1759

### Wrong calculation of DL window size for DL assignment

06/28/2016 10:27 AM - arvind.sirsikar

<b>Status:</b> Stalled	<b>Start date:</b> 06/28/2016
<b>Priority:</b> High	<b>Due date:</b>
<b>Assignee:</b> lynxis	<b>% Done:</b> 30%
<b>Category:</b>	
<b>Target version:</b>	
<b>Spec Reference:</b>	
<b>Description</b>	
Hi,	
When we create DOWNLINK TBF without existing UPLINK TBF i.e DL assignment on PCH case, The calculation of window size is found to be incorrect.	
Description:	
4 time slots is configured for DL and osmo-pcu.cfg is configured as window-size 64 104.	
When we try to do IPERF in DL direction, PCU allocates window-size as 160 but configures 4 time slots as seen by PCU VTY. Below is the result of VTY output.	
DL TBFs TBF: TFI=0 TLLI=0xf73d2ece (valid) DIR=DL IMSI=901555000001280 created=1095 state=0000000a 1st_TS=4 1st_cTS=6 ctrl_TS=6 MS_CLASS=0/1 TS_alloc=4 5 6! 7 CS=MCS-9 WS=160 V(A)=12 V(S)=12 nBSN=138	
But we see proper calculation of window-size when DL assignment is done on PACCH. as seen by VTY interface below	
DL TBFs TBF: TFI=0 TLLI=0xf73d2ece (valid) DIR=DL IMSI=901555000001280 created=1095 state=0000000a 1st_TS=4 1st_cTS=6 ctrl_TS=6 MS_CLASS=0/1 TS_alloc=4 5 6! 7 CS=MCS-9 WS=480 V(A)=138 V(S)=139 nBSN=138	
Thanks, Aravind Sirsikar	
<b>Related issues:</b>	
Related to OsmoPCU - Feature #1533: Separate the window handling from the TBF...	<b>Feedback</b> 02/22/2016
Related to OsmoPCU - Bug #1524: PACCH on the wrong timeslot	<b>Stalled</b> 02/22/2016

### History

#1 - 08/15/2017 05:40 PM - laforge

#2 - 08/17/2017 06:53 AM - laforge

- Assignee changed from arvind.sirsikar to sysmocom

#3 - 10/11/2017 01:05 AM - laforge

- Assignee changed from sysmocom to msuraev

- Priority changed from High to Normal

#4 - 10/11/2017 08:33 AM - laforge

- Priority changed from Normal to High

#5 - 11/02/2017 04:42 PM - msuraev

I don't see explicit tests for it - only as part of larger TBF tests. So the first step would to add such a test.

**#6 - 11/27/2017 03:23 PM - msuraev**

- Project changed from Cellular Network Infrastructure to OsmoPCU

**#7 - 12/13/2017 01:49 PM - msuraev**

- Related to Feature #1533: Separate the window handling from the TBF more clearly added

**#8 - 12/18/2017 01:12 PM - msuraev**

- Status changed from New to In Progress

- % Done changed from 0 to 20

Related gerrit 5355, 5336-5341 are under review. Remaining parts: clearly differentiate between CCCH and PACCH assignment, figure out why it makes a difference to window size calculations and test with different window sizes settings and available channels.

**#9 - 01/11/2018 09:37 AM - msuraev**

- Status changed from In Progress to Stalled

**#10 - 01/15/2018 10:07 AM - msuraev**

- Status changed from Stalled to In Progress

- % Done changed from 20 to 30

Patches were merged. Additional gerrit 5786 was sent for review.

**#11 - 01/17/2018 04:35 PM - msuraev**

5786 is merged, needs additional testing.

**#12 - 02/01/2018 02:39 PM - msuraev**

The window size parameter in vty defined as follows:

```
window-size <0-1024> [<0-256>]
Window size configuration (b + N_PDCH * f)
Base value (b)
Factor for number of PDCH (f)
```

So the configuration window-size 64 104 means that  $WS(1TS) = 64 + 1 * 104 = 168$  and  $WS(4TS) = 64 + 4 * 104 = 480$ . By default  $f = 0$ .

**#13 - 02/05/2018 03:42 PM - msuraev**

- Related to Bug #1524: PACCH on the wrong timeslot added

**#14 - 02/05/2018 03:45 PM - msuraev**

In addition to difference between PACCH and CCCH, the TBF can be assigned via CCCH but configmed via PACCH (see `rcv_control_ack()` function). This and the related [#1524](#) makes it harder to reproduce this reliably.

Related gerrit 6239 is under review.

**#15 - 02/05/2018 04:40 PM - laforge**

Hi Max,  
On Mon, Feb 05, 2018 at 03:45:50PM +0000, msuraev [REDMINE] wrote:

In addition to difference between PACCH and CCCH, the TBF can be assigned via CCCH but configmed via PACCH (see `rcv_control_ack()` function). This and the related [#1524](#) makes it harder to reproduce this reliably.

would it be possible to disable certain variants as a temporary hack?

**#16 - 02/21/2018 11:19 PM - msuraev**

- Status changed from In Progress to Stalled

Needs a way to reproduce this reliably.

**#17 - 03/01/2018 11:14 PM - laforge**

- Assignee changed from msuraev to sysmocom

**#18 - 10/02/2018 03:46 PM - laforge**

**#19 - 10/17/2018 09:43 AM - laforge**

- Assignee changed from sysmocom to msuraev

**#20 - 04/15/2019 07:46 AM - laforge**

- Assignee changed from msuraev to lynxis