

## Cellular Network Infrastructure - Feature #4090

### Document user plane handling with BSC+MSC co-located OsmoMGW, Osmux, and outlook

07/05/2019 01:52 PM - pespin

<b>Status:</b>	Resolved	<b>Start date:</b>	07/05/2019
<b>Priority:</b>	High	<b>Due date:</b>	
<b>Assignee:</b>	pespin	<b>% Done:</b>	100%
<b>Category:</b>			
<b>Target version:</b>			
<b>Spec Reference:</b>			
<b>Description</b>			
I erased previous task #2909 by error. Recreating.			
We need some kind of documentation on how the new, OsmoMGW-enabled user plane domain looks like. This includes the BSC-colocated OsmoMGW as well as the MSC-colocated OsmoMGW, as well as details on the use of MGCP between the respective call agents and MGW instances.			
Non-exhaustive list of topics to include:			
* message sequence charts			
* diagrams showing network elements and control + user plane relationships			
* dynamic endpoint allocation			
* outlook on re-integrated support for E1 BTS			
* name MGCP/MGW related config parameters in BSC and MSC config			
* outlook on Osmux re-integration			
* interaction between MNCC signaling and user plane at MSC			
* outlook on IuUP			
This is not really a user manual of a given single network element, but a document that describes the relation between the respective elements. Individual sections/chapters could possibly be reused/included into the BSC/MGW/MSC user manuals, but let's have a look at this after having a draft of that document.			
Let's also make sure we use any existing bits and pieces from the osmo-mgw manuals (and the ladder diagrams I created there), as well as the wiki and possibly any not-yet-public ladder diagrams Dexter might have created in recent months.			
<b>Related issues:</b>			
Related to OsmoMGW - Feature #2551: generalization of OSMUX support in osmo-mgw		<b>Resolved</b>	<b>10/06/2017</b>
Related to OsmoBSCNAT - Feature #4124: OsmoBSCNAT : Write user manual		<b>New</b>	<b>07/22/2019</b>

## History

### #1 - 07/05/2019 01:54 PM - pespin

Documented the MGCP/OsmoMGW specific part in here:

<https://gerrit.osmocom.org/c/osmo-mgw/+14681>

TODO:

- Add some shared section in OsmoBSC, OsmoMSC manuals (and maybe osmux reference manual too) to show with flow diagrams how calls work, with AoIP and with SCCPlite. Can use [1] as a source for the diagrams.
- Add BSC specific section explaining how to configure it with VTY and adding BSC related considerations
- Add MSC specific section explaining how to configure it with VTY and adding MSC related considerations

[1] [https://jenkins.osmocom.org/jenkins/view/TTCN3/job/ttcn3-bsc-test/655/artifact/logs/bsc-tester/BSC\\_Tests.TC\\_assignment\\_osmux.pcap](https://jenkins.osmocom.org/jenkins/view/TTCN3/job/ttcn3-bsc-test/655/artifact/logs/bsc-tester/BSC_Tests.TC_assignment_osmux.pcap)

### #2 - 07/05/2019 01:56 PM - pespin

- Status changed from New to In Progress

### #3 - 07/05/2019 02:48 PM - pespin

- Related to Feature #2551: generalization of OSMUX support in osmo-mgw added

**#4 - 07/05/2019 05:20 PM - pespin**

- % Done changed from 0 to 10

I started the Osmux "network-wide" documentation in here:

<https://git.osmocom.org/osmo-gsm-manuals/log/?h=pespin/osmux>

**#5 - 07/18/2019 06:43 PM - pespin**

More work done on osmux documentation in pespin/osmux branch mentioned above. I did some clean up and provided packet flow diagrams on 3 different network setups:

- AoIP
- SCCPLite
- SCCPLite + BSCNAT

**#6 - 07/19/2019 04:09 PM - pespin**

- % Done changed from 10 to 80

I finally moved much of the documentation to a common place, where will then be included by User Manuals of OsmoMGW, OsmoMSC, OsmoBSC and OsmoBSCNAT:

<https://gerrit.osmocom.org/c/osmo-gsm-manuals/+/14839>

I also required this commit to be able to include the files from osmo-gsm-manuals in osmo-\*.git/doc/manuals/chapters/\*.adoc:

<https://gerrit.osmocom.org/c/osmo-gsm-manuals/+/14838>

Then, each osmo-\* repo includes the bits from osmo-gsm-manuals + some specific documentation from their own repos:

MGW: <https://gerrit.osmocom.org/c/osmo-mgw/+/14681> doc: Add Osmux documentation to OsmoMGW User Manual

BSC: <https://gerrit.osmocom.org/c/osmo-bsc/+/14840> doc: Add Osmux documentation to User Manual

MSC: <https://gerrit.osmocom.org/c/osmo-msc/+/14841> doc: Add Osmux documentation to User Manual

TODO: BSC-NAT user manual related work.

**#7 - 07/22/2019 09:03 AM - pespin**

- Related to Feature #4124: OsmoBSCNAT : Write user manual added

**#8 - 07/22/2019 09:04 AM - pespin**

- Status changed from In Progress to Feedback

BSCNAT doesn't yet have a user manual, that's being handled in [#4124](#), and Osmux section for it too. So once the above patches are merged, we can close this ticket.

**#9 - 07/25/2019 10:40 AM - pespin**

- Status changed from Feedback to Resolved

- % Done changed from 80 to 100

Merged, closing.