

Cellular Network Infrastructure - Support #3158

OpenBTS with OsmocomProjects ?

04/12/2018 05:41 AM - Endast

Status: Closed	Start date: 04/12/2018
Priority: Low	Due date:
Assignee:	% Done: 0%
Category:	Estimated time: 0.00 hour
Target version:	
Spec Reference:	

Description

Hello,

I'm currently setting up an almost entire basic mobile network with the Osmocom projects. My lab have some OpenBTS hardware and I was wondering if it's possible to interface OsmoBSC and OpenBTS ?

I already read an article on Osmocom website talking about these two projects and making a comparison between them and indeed, the two approaches are completely different but maybe is it possible to use only the hardware part of OpenBts ?

Have anyone already tried a similar thing ?

Thank you for your answers,
Kind Regards,
Vincent

History

#1 - 04/12/2018 07:11 AM - laforge

On Thu, Apr 12, 2018 at 05:41:59AM +0000, Endast [REDMINE] wrote:

I'm currently setting up an almost entire basic mobile network with the Osmocom projects. My lab have some OpenBTS hardware and I was wondering if it's possible to interface OsmoBSC and OpenBTS ?

Can you be more specific as to what "some OpenBTS hardware" is? OpenBTS is software, and it runs on a variety of hardware, starting from a classic USRP up to virtually any UHD-supported SDR.

Have anyone already tried a similar thing ?

Most SDR hardware supported by the OsmoBTS Transceiver program should 1:1 be supported by OsmoTRX. If your particular device is not, there are two methods of approaching this:

a) using the OsmoBTS Transceiver with that hardware and making it talk to osmo-bts-trx (the UDP based protocol should be the same, or very close)

or

b) porting support for that specific SDR hardware into OsmoTRX.

#2 - 05/11/2018 05:25 AM - Endast

Hello,

Sorry for the long delay. Time was necessary to take the hardware, to set it up etc...

So I will try to be as clear as possible :

I'm configuring a very basic mobile network with : Osmo-Hlr, osmo-msc, osmo-stp, osmo-bsc

My lab have a commercial hardware from Range Network with OpenBTS software (almost ready to run with basic configuration), the reference equipment is 5150-001.

As we have to simulate a real network simulator (so with the real equipment such as MSC and HLR), I'm wondering if it's possible to use only the antennas of the 5150 range network to spread my cell network and so the BTS, BSC, MSC etc functions will be organized by the different Osmocom projects. So in my mind, I don't need the openBts software (neither the smqueue, asterisk etc...).

For this I found this link : <https://osmocom.org/projects/osmotrx/wiki/OsmoTRX> which mentions OpenBTS.

As it's not very clear, can you confirm (in your point of view) that I need OsmoBts and OsmoTRX as well to do that ?

Thank you for your answer

#3 - 05/11/2018 08:45 AM - laforge

The combination of hardware and software you are using has - to the best of our knowledge - so far not been used by anyone so far.

The Osmocom stack has an extensive list of BTS and SDR hardware from many manufacturers that it supports, ranging from Siemens, Nokia, Ericsson, ip.access, sysmocom, Nutaq, Octasic, and many others for full BTS products, as well as UmTRX, Ettus USRP and other UHD-supported devices as SDR hardware.

The Range Networks radio you are describing is not in this list.

Technologically, it should not be very complicated to support, it's just a combination that nobody has yet invested the time/efford/funding in to get it supported. See my previous response on the two different possible approaches to go about this.

#4 - 05/15/2018 04:10 AM - Endast

OK thank you for your answer.

According to the first approach, that would mean that I have to install OsmoTRX on that hardware right ? And so this OsmoTRX on RangeNetwork will talk to the OsmoBTS-TRX on my computer.

Sorry for this basic question, i'm quite lost between the different names.

#5 - 06/23/2018 07:08 PM - laforge

- Priority changed from Normal to Low

Endast wrote:

According to the first approach, that would mean that I have to install OsmoTRX on that hardware right ? And so this OsmoTRX on RangeNetwork will talk to the OmosBTS-TRX on my computer.

yes, this is a correct description of the first approach.

The difficulty is not **installing** the software. The task that needs to be started with is **porting** the OsmoTRX software to a new radio hardware that it doesn't support so far.

#6 - 08/03/2018 10:21 AM - fixeria

- Project changed from OsmoMSC to Cellular Network Infrastructure

- Status changed from New to Feedback

As it's not actually related to [OsmoMSC](#), moving it to [cellular-infrastructure](#).

If the question is resolved, please close this issue.

#7 - 08/08/2018 11:18 AM - laforge

- Status changed from Feedback to Closed