

# **(E)GPRS support in OsmocomBB**

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# Introduction

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## Why? What for?

- TTCN-3 test cases for OsmoBTS, OsmoPCU, OsmoBlaBlaBla...
- Facilitate researchers to research GPRS
- New feature for OsmocomBB

# tuwat!

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## Ideas:

- A new L2&3 application ([gprscon?](#))
  - Creates a new network interface
  - Implements RLC / MAC, etc.
    - some parts are already there
- No Calypso PHY: too hard, lots of changes required
- SDR PHY support for now (i.e. via [trxcon](#))
  - Scheduler is already there (see [sched\\_\\*.c](#))
  - WIP: channel coding (see GSM TS 05.03)
    - implemented
    - but not tested :(
- GR-GSM transceiver
  - GMSK is implemented
  - 8-PSK is not
    - but Piotr is working on it

# tuwat!

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## Questions:

- Imagine we have a PDCH timeslot
  - Multiple subscribers may use it, right?
  - How to distinguish between received data?
    - TBF ID?
  - At which moments of time a MS is permitted to TX?
    - How to know this?