



Local DAB+ broadcasting using mmbtools

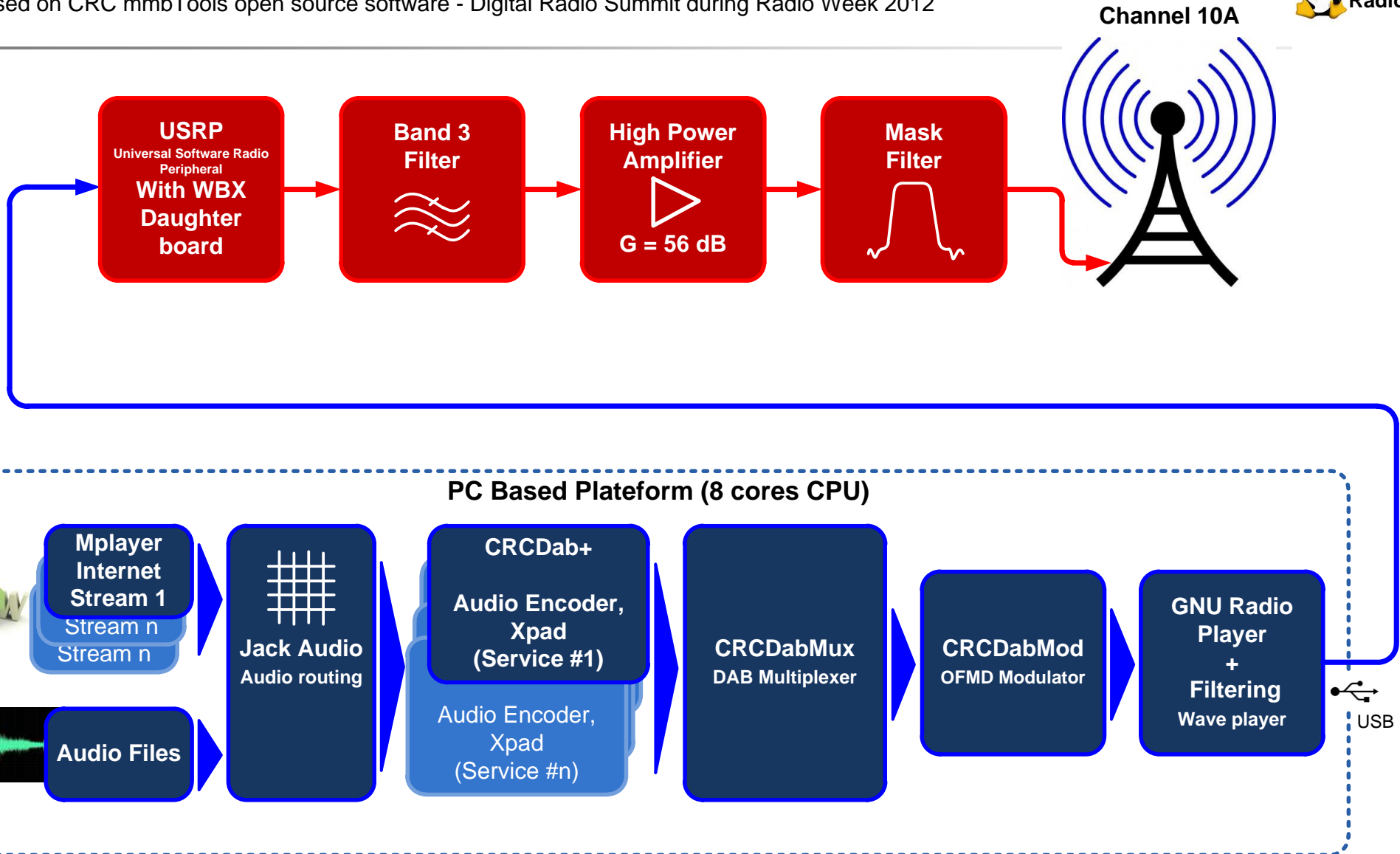
Mathias Coinchon



- Software Project started by Communication Research Center
 - CRC-DabMux: DAB multiplexer
CRC-DabMod: COFDM modulator
 - Transmission using Ettus Software Defined Radio Peripheral
 - First demonstrated at IBC in 2007
 - Open sourced (GPL licence)
 - 2013: Project dropped by CRC
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Digital Audio Broadcasting Transmit Chain

Based on CRC mmbTools open source software - Digital Radio Summit during Radio Week 2012



ODR-mmbtools

- Fork of CRC-mmbtools: ODR-DabMux, ODR-DabMod
- Zero-MQ interface (more flexible)
- Monitoring
- Config files and console

- Fdk-aac-dabplus: DAB+ encoder (HE-AAC 960)
(toolame for DAB, MPEG Layer II)

- Maintained by opendigitalradio.org
- <https://github.com/Opendigitalradio>



On air in Geneva (since May) and Zurich (since August)



Zurich: 1kW ERP

Geneva: 5kW ERP

- Simple and compact setup. No headend
 - Digiris SA holds the licence
 - 13 radio stations per multiplex
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Under development (not yet live on air)

- Dynamic Label Service (DLS, text service)
 - Slideshow, added by CSP in Italy
 - Single Frequency Network using GPSSDO
 - Mixing commercial equipment (gates air) with open SDR.
 - Distributed encoders in studio (tested on Raspberry Pi)
 - Multiple multiplexes on one SDR peripheral
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Thank you

Mathias Coinchon
coinchon@ebu.ch

More information on
www.opendigitalradio.org