

# ALSA

- James Courtier-Dutton:
  - Linux Multimedia (Videos, Music, VoIP, Multicast etc.)
  - Linux Kernel (ALSA)
  - Linux Software Defined Radio (SDR)
  - Reverse Engineering.



# ALSA : Activity

- Project aim:
  - Creating drivers
  - driver maintenance
  - HAL library (alsa-lib)
  - Collecting "lowlevel" tools (alsa-tools package)
  - Responding to user needs



# ALSA : Challenges

- Over 1000 sound cards and variants already exist
- Documentation
- Mixer abstraction
- PCM - Hardware period to Application period abstraction
- we need more developers!!!



# ALSA : Dependencies

- Libraries in use:
  - libasound
  - Libm, Libpthread, Libdl, libc
  -
- Projects dependent upon:
  - We depend on the kernel and glibc.
  - Possitive help from manufacturers.



# ALSA : Next Steps

- Recent achievements
  - Alsamixer now displays in dB gain units in addition to the older scale of 0-100%. This makes setting the sound capture levels much easier.
  - Device enumeration. Allows the user to easily select which sound card to use for sound playback.
  - Professional sound card support
- Next Steps
  - Meet all the Challenges from slide 2!!!

