IIO
and
Media Controller
IIO was created to fill the gap between hwmon and input.

- Supports general purpose ADCs, DACs, accelerometer, gyro, light sensor, pressure, magnetometer.
Introduction

• Those were typically low speed device (< 10kSPS)
  – Control bus was also data bus (I2C/SPI)
Introduction

- Things changed quickly
- Support for high-speed converters
  - Up to 5GSPS
  - Separate control and data bus
  - E.g. LVDS or JESD204b for data
Processing Pipelines
Processing Pipelines
Processing Pipelines

- Converters become smarter
  - Complex processing pipelines inside the chip itself
- Converters are connected to FPGAs
  - Even more complex processing pipeline inside the FPGA
  - Multiple converters connected to a single pipeline
We need topology information for applications to make sense of this
Media Controller

- And this is where media controller comes in
- Data processing pipelines are very similar to video processing pipelines
  - Same concepts
- No need to re-invent the wheel