BUD17-223
IoT Toolchain BoF
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IoT Toolchain BoF

We are here to

- Ask questions about IoT development
- Find out what tools need customization
- Find out what new tools are needed

Goal for today

- Chat, give opinions

Goal for later

- Simplify IoT development
Things I don’t know about

? Is IoT Toolchain the same as Embedded Toolchain?

? What tools do IoT developers need?

? Are current tools enough for IoT development?
Things you don’t know about

? Thing #1 ?

? Thing #2 ?

? Thing #3 ?
IoT toolchain ?= Embedded Toolchain

- IoT has a gateway side with reach OS
  - Embedded doesn’t
- Embedded development depends on JTAG
  - Does IoT depend on JTAG?
- IoT is similarly sensitive to code size
A day of IoT developer?

- **Code**
- **Build**
  - Compilers, assemblers, linkers, libraries
- **Test**
  - Can testing using hardware scale?
  - Can emulation test WiFi, Bluetooth, motion and other real-world artifacts?
- **Debug / Analyze**
  - Does IoT developer need a classical debugger?
  - Does IoT developer need a good tracer / logger?
  - Which tool is used most?
Linaro’s bare-metal toolchain today

- Not an embedded toolchain
- GNU-based
  - GCC, Binutils, Newlib, GDB
- A-profile
  - No libraries for M- or R-profiles
ARM’s embedded toolchain today

- Good embedded toolchain
- GNU-based
  - GCC, Binutils, Newlib, GDB
- M-profile
  - Cortex-M0 -- Cortex-M7
- R-profile
  - Cortex-R4 -- Cortex-R8
Thank You

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