RIOT

The Friendly Operating System for the IoT

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1. What is RIOT?

2. Why RIOT?

3. RIOT today

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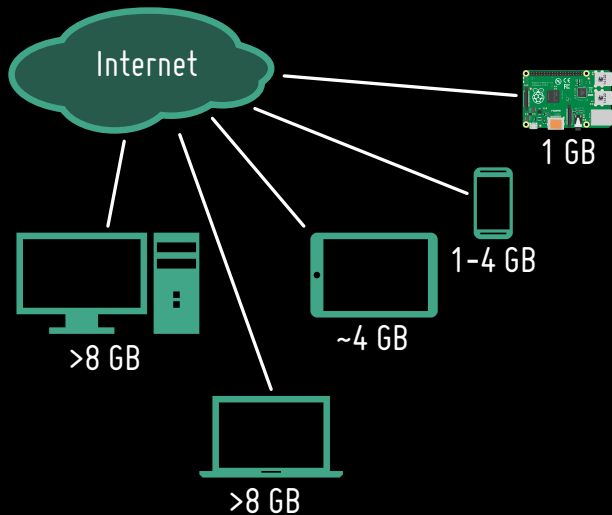
What is RIOT?

- Free operating system for
    - Embedded systems
    - The Internet of Things (IoT)

- Real-time capable micro-kernel
- Open Software, Open Standards (close ties between RIOT and IETF community)
- >98% of code-base in C
- On application level:
    - C++ support (incl. rudimentary Arduino-like API)
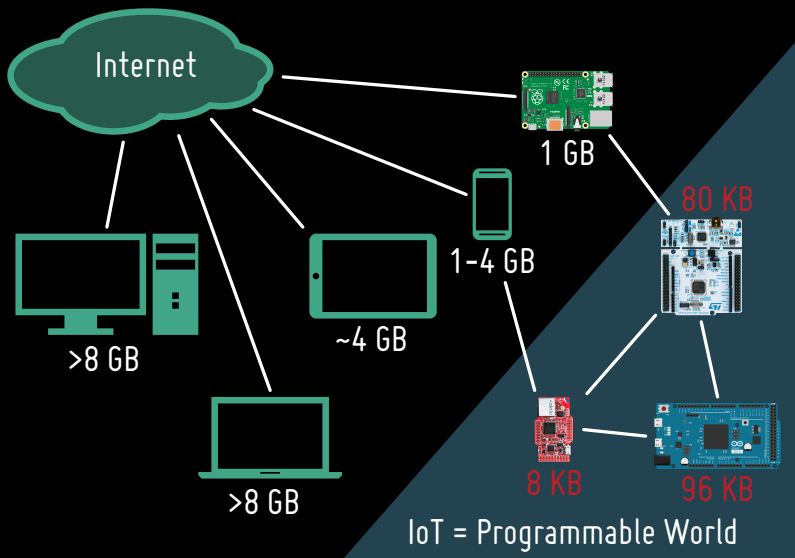   - (Micro-)Python and Rust support pending
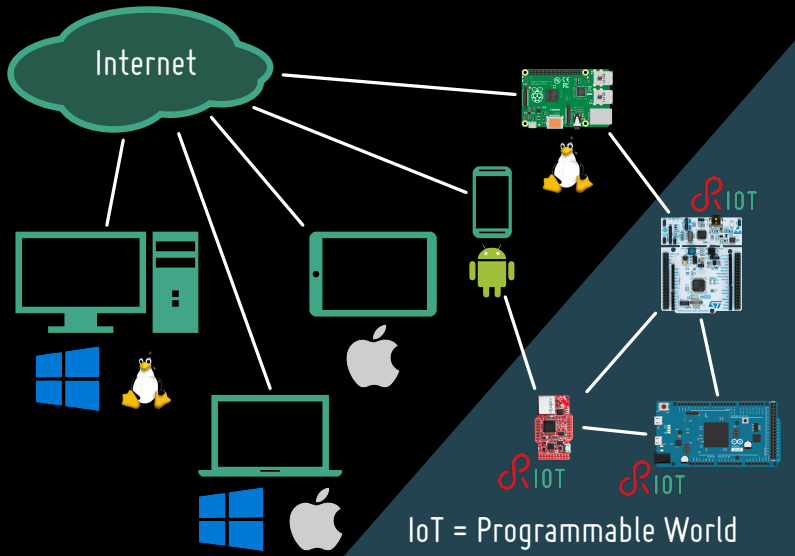
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Why RIOT?

Why RIOT?

Internet

1 GB

80 KB

1–4 GB

>8 GB

~4 GB

8 KB

96 KB

>8 GB

IoT = Programmable World

Why RIOT?

IoT = Programmable World

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RIOT today

- >150 contributors world-wide
- Contributions from
    - industry
    - academia
    - makers/tinkerers
- 1st RIOT community summit in June 2016, next one pending September 2017
- Support for various CPU architectures:
    - ARM Cortex-M / ARM7
    - TI MSP430
    - Atmel AVR (Arduino)
    - (x86)