



LinkMagic & GBike

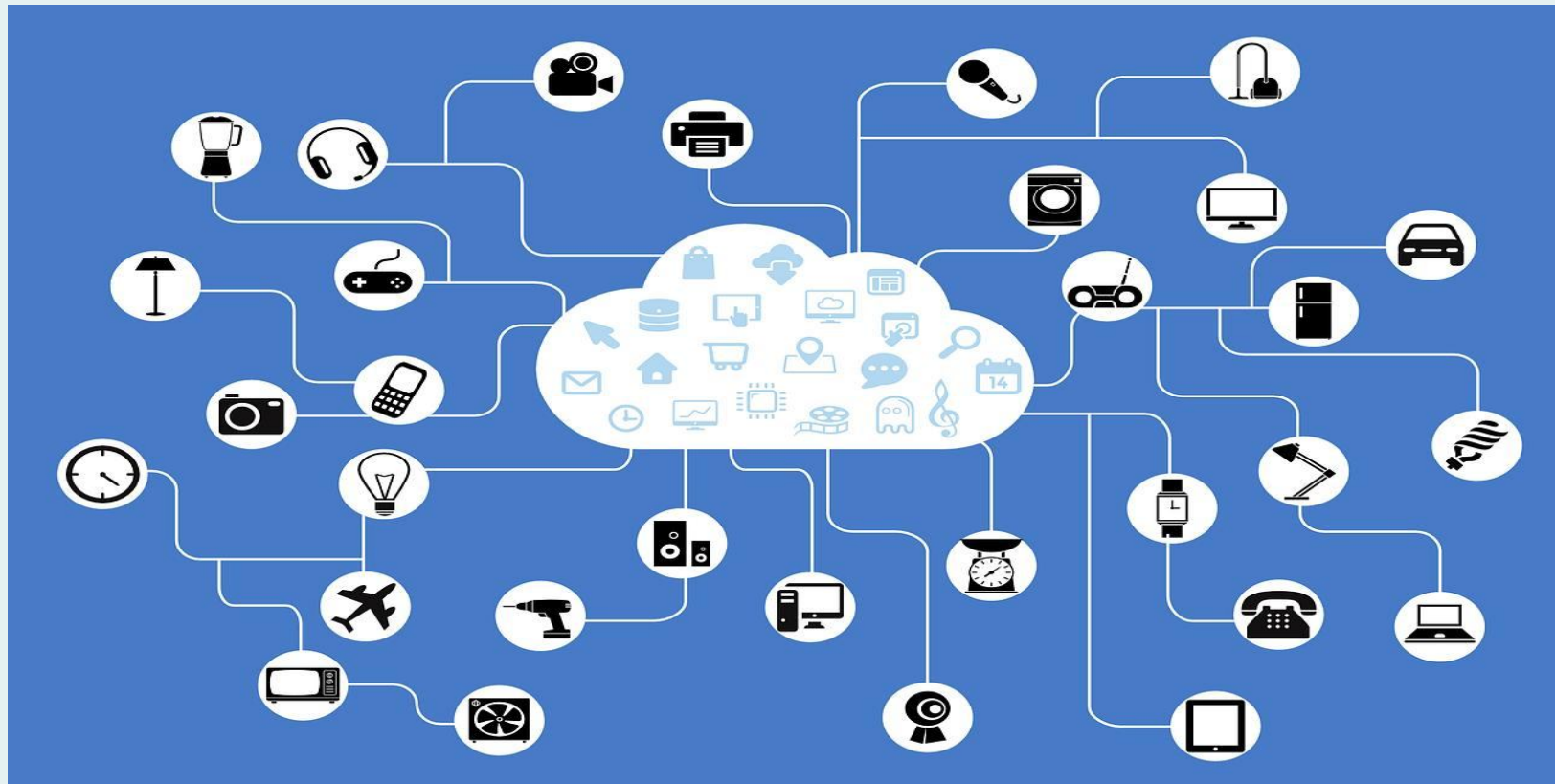
An open source protocol for IoT devices



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To be part of IoT?

- 🏠 Embedded devices
- 🏠 Connectivities, wireless (internet, BT, Zigbee) or wired



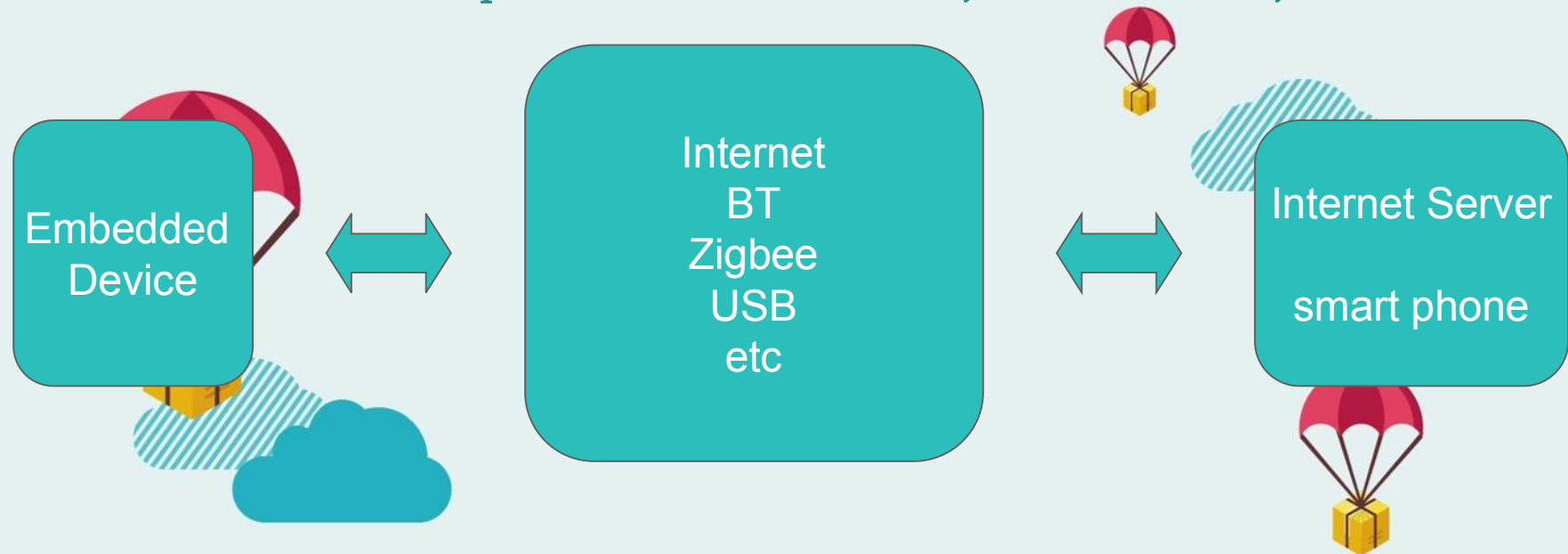
What problem when we connect them

- Communication protocol internet, bluetooth, USB



What problem when we connect them?

- Communication protocol internet, bluetooth, USB



To provide a common solution,
we have created LinkMagic



What is Link Magic

- ▀ To speed up development
- ▀ To provide a high level protocol for IoT communication
- ▀ Easier communication with embedded device
- ▀ Enable communicate with multiple devices



A common solution

- A tiny C library, easy integration, fast development
- It does not matter with platform
- A standard interface



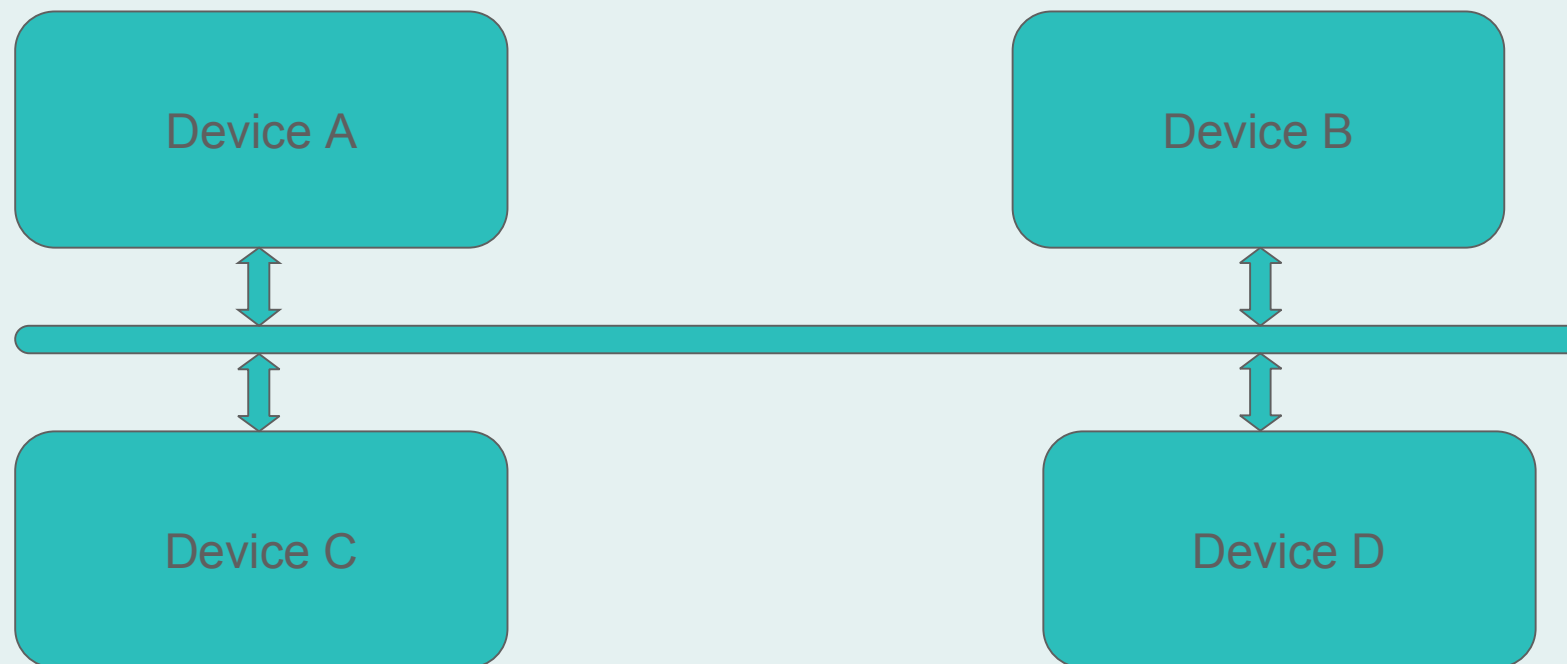
Easy communicat with device

- ☛ Error tolerant ability based on its internal state machine
- ☛ Make accessing embedded device like invoking a local API

Enable multiple devices' communication

- communicate with multiple devices in the same time

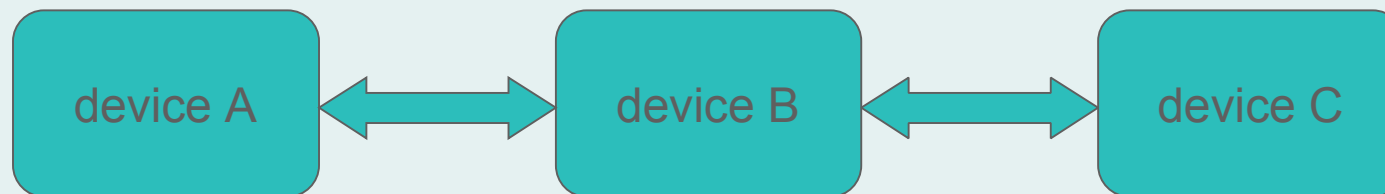
in this case device A B C D are connected in a same zone, each data can be received by all others



Enable multiple devices communicate

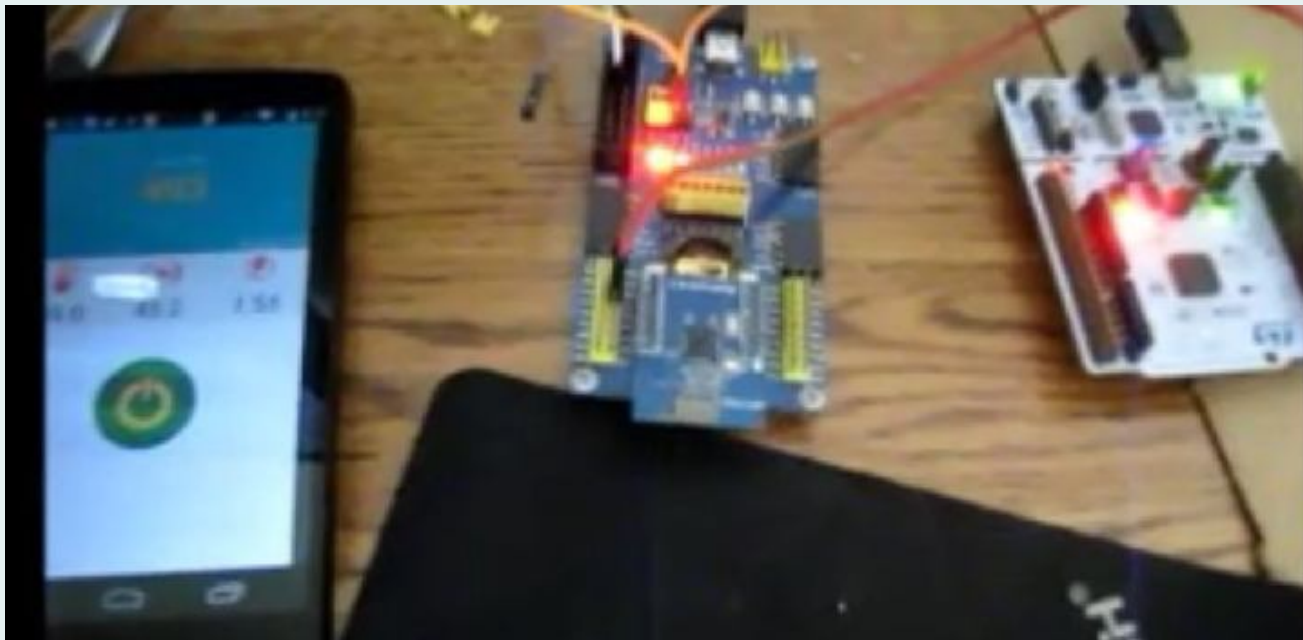
- Communicate with remote devices indirectly

in this case device A is only connected with device B,
while device B is connected both with Device A and C



GBike

- ▤ Provides a solution based on linkMagic
- ▤ Designed for bicycle like applications



How it works



Hardware environment

- Android Nexus5
- BLE nrf51822 – support data storage, data analysis
- GBIKE Controller STM32 – simulates an existing controller in customer products

Software environment

- Android SDK version ≥ 11
- NRF51822 mbed s130_nrf51_1.0.0_softdevice
- STM32 mbed with RTOS
- linkMagic v0.1



Q&A



For sample projects: <https://github.com/marduino>

For more technic support: shmayunfei@foxmail.com

To Join our qq group: 79272912

Thanks