FossFish

Our IoT World

- IoT want to be pervasive, ubiquitous

- Adoption driven by feature and cost

- Cheap hardware ! cheap software ?

How? Open Source Software !

Open**Source**

Cheap ? No so fast !

- Compliance

- Secure boot

- Robust update

- Remote management

- Optimization

- Automated testing

- ...

Let's Collaborate

- That is what infrastructure is for !

- Reuse Open Source components

- Easy, upstream your patch and move fast...

- Everyone does that just fine, right ?

Is that your company **Job** ?

It is Not !

- Building hardware is hard enough

- Building software is hard too !

- Building your service is where you want to spend your time !

- Still, today, your engineer need to do all of this things : compliance, security, update, platform optimization...

- What if they could just work on their application like they do when working on a website ?

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New infrastructure !

- Linux

- Connectivity (Wireless, Bluetooth, 3/4G, ...)

- User interface toolkit

- Device management API

- High level language (Javascript) with easy to get extentions !

- Peer to peer communication infrastructure !

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NIH, no !

Linux Distribution

- Pick one, optimize it !

- IoT today, are the computer of yesterday !

- Require a bit of qemu porting

- Pick upstream open source project that are performance driven !

- Move to a robust firmware update mecanism

- Fast release cycle

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Connectivity !

- Provide daemon to manage all of them

- Provide API for application to manipulate them

- Internet access built in

- Discoverability built in

- Peer2Peer built in

User interface toolkit

- Desktop class

- Customizable to your needs !

- Touch, internationalization support

- Fast and light for IoT constrains

Device management

- Robust firmware update

- Independent application update

- Alpha, beta and A/B testing

- Peer2Peer

- Remote connection for diagnostic

- Health report

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High level language !

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- Javascript

- Compatible with all node.js JavaScript package

- Full system access

- Low memory profile

- Heavy task done natively by the platform

Peer to peer native

- Scalability

- Robustness

- Low cost of operation

- Modern stack (Blockchain, IPFS)

Longer term

- Provide proper financial incentive via blockchain to every contributor of the stack.

- White brand application store for use case where screen can host multiple applications.

- Automated testing of applications before updating firmware.

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