



FossFish

# Our IoT World

- IoT needs to be pervasive, ubiquitous
- Adoption driven by feature and cost
- Hardware is no longer the cost, it's software

The Solution? Open Source Software!

# A Complex World

- Compliance
- Secure boot
- Robust update
- Remote management
- Optimization
- Automated testing
- ...

# Let's Collaborate

- That is what infrastructure is for
- Reuse Open Source components
- Local changes, upstream your patch, move on...
- It works well for everyone, right?

# Is That **Your** Job?



# Focussing On Delivery

- Building hardware is **hard** enough
- Building firmware and libraries is hard too!
- Innovators want to focus on their **products**
- Your team needs the tools to be productive

# Open infrastructure

- Linux
- Connectivity (Wireless, Bluetooth, 3/4G, ...)
- Peer to peer communication infrastructure
- User interface toolkit
- Device management API
- High level, extensible programming language



# Effortless Distribution

- A proven platform with established standards
- Development tooling and simulation exists
- Package management is well understood
- Transparent update of firmware and platform
- Fast release cycle

**NIH?** Great!



# Standard Connectivity

- Provided daemon manages all channels
- APIs for application to utilise them easily
- Internet access built in
- Discoverability built in
- Peer to peer built in
- PubSub, Queues and WebSocket supported



# User Interface Toolkit

- Desktop class
- Customizable to your needs
- Touch, internationalisation support
- Fast and light for IoT constraints

# Device Management

- Robust firmware update
- Independent application update
- Alpha, beta and A/B testing
- Peer2Peer
- Remote connection for diagnostic
- Health report

# High Level Language

- 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)

# Into the Future

- Financial (crypto) incentive to every contributor
- Application store for multiple app devices
- Automated testing of applications
  - Before application updates
  - Compatibility checks for firmware updates

# FossFish



cedric@fossfi.sh

<http://fossfi.sh>  
@fossfi\_sh