GreenHouse

Guillaume BESNARD - Timothée DEPRIESTER

RICM4 - Polytech' Grenoble 9 Avril 2018

Table of contents



- 1. Presentation
- 2. Our solution
- 3. Information flow
- 4. Farm visit
- 5. Improvements
- 6. Conclusion

Presentation





- Improve production efficiency
- Protect crops by helping keeping the right environnement
- Sensors must be moveable, autonomous and resistant







Our solution





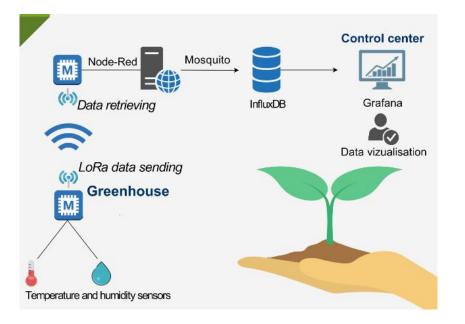
• A water resistant box including all the sensors

• Out of the box setup





Information flow



- Modularity of the installation
 - Internet is down at night
 - Client/server architecture

• Important range

• Open source

🌀 Grafana - DashboardJDC 🗙 🕂

(←) → ♂ @

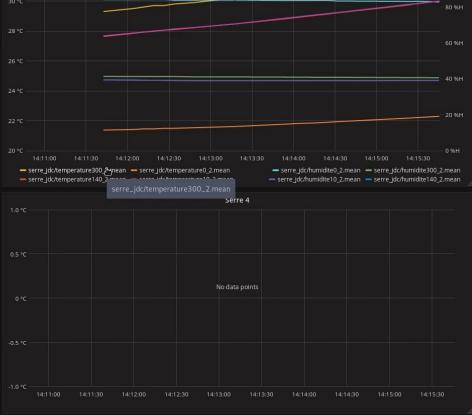
① ₱ iot:3000/dashboard/db/dashboardjdc?refresh=10s&orgld=1&from=now-5m&to=now

--- 🖸 🏠 🔍 Search

Ⅲ\ 🗟 🗢 🗉 🛃 👒 💿 😑







Serre 2

✓ Zoom Out > ② Last 5 minutes Refresh every 10s ℑ

Farm visit





• Integration

• Live fix

• Contact exchange

"Anything that can go wrong, will go wrong." Murphy's Law

Improvements



- Protocol must be upgraded to address more sites
- Versionning
- Reliability
- Longevity test on the SD card
- Storage estimation
- Handshake solution with LoRaWAN
- Integration tests



Conclusion / Question ?



Team work

- Opening to IOT
- Setup installed

