

ATLANTIS PROJECT FINAL PRESENTATION

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Group n°13

eXia Nancy fourth promotion: **Atlantis Project**

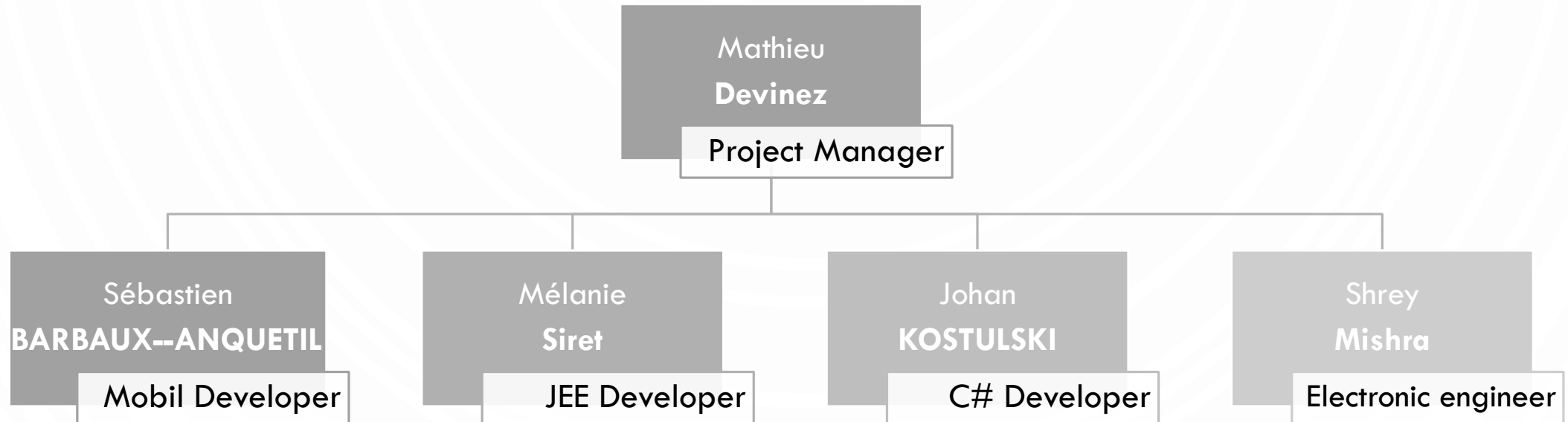
Promotion: **2017 - 2018**

SUMMARY

- **Presentation of the team**
- **Context / Needs**
- **Architecture**
 - Logic
 - Physical
- **Mobile application**
- **C# platform**
- **J2E platform**
- **IOT platform**
- **Demonstration**
- **Improvements**
- **Questions / responses**



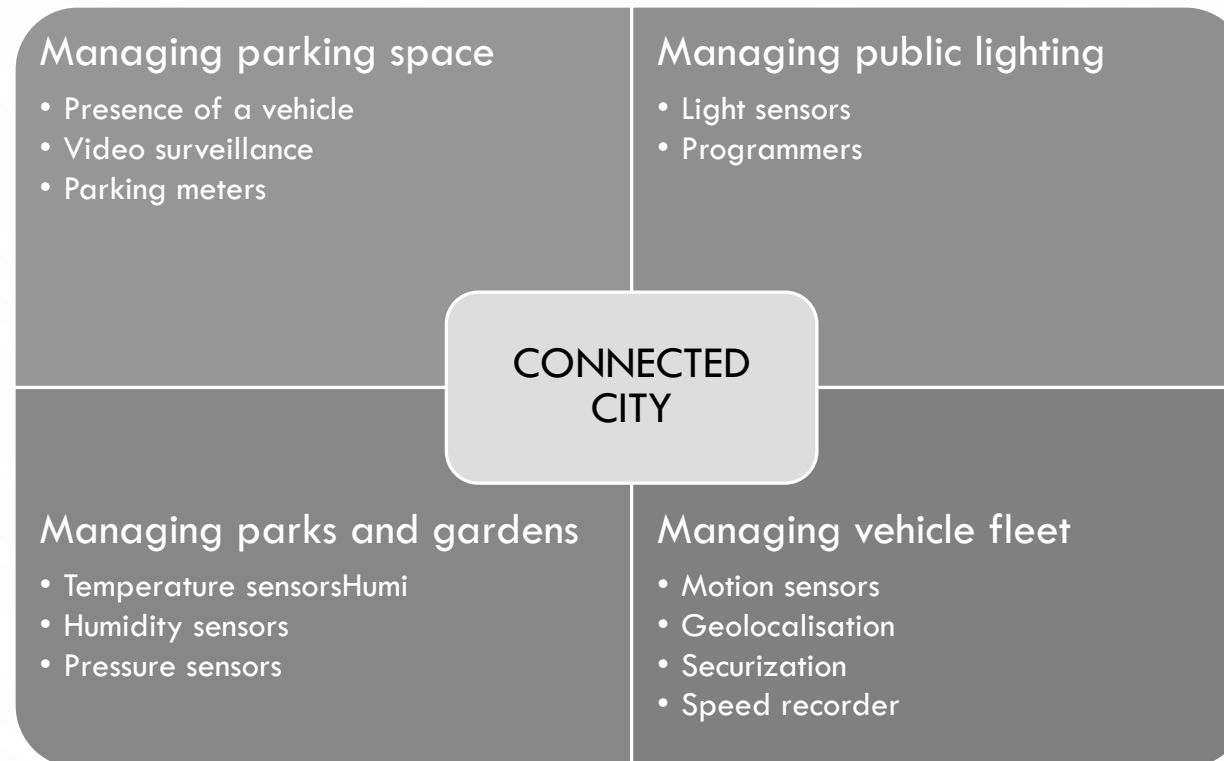
PRESENTATION OF THE TEAM



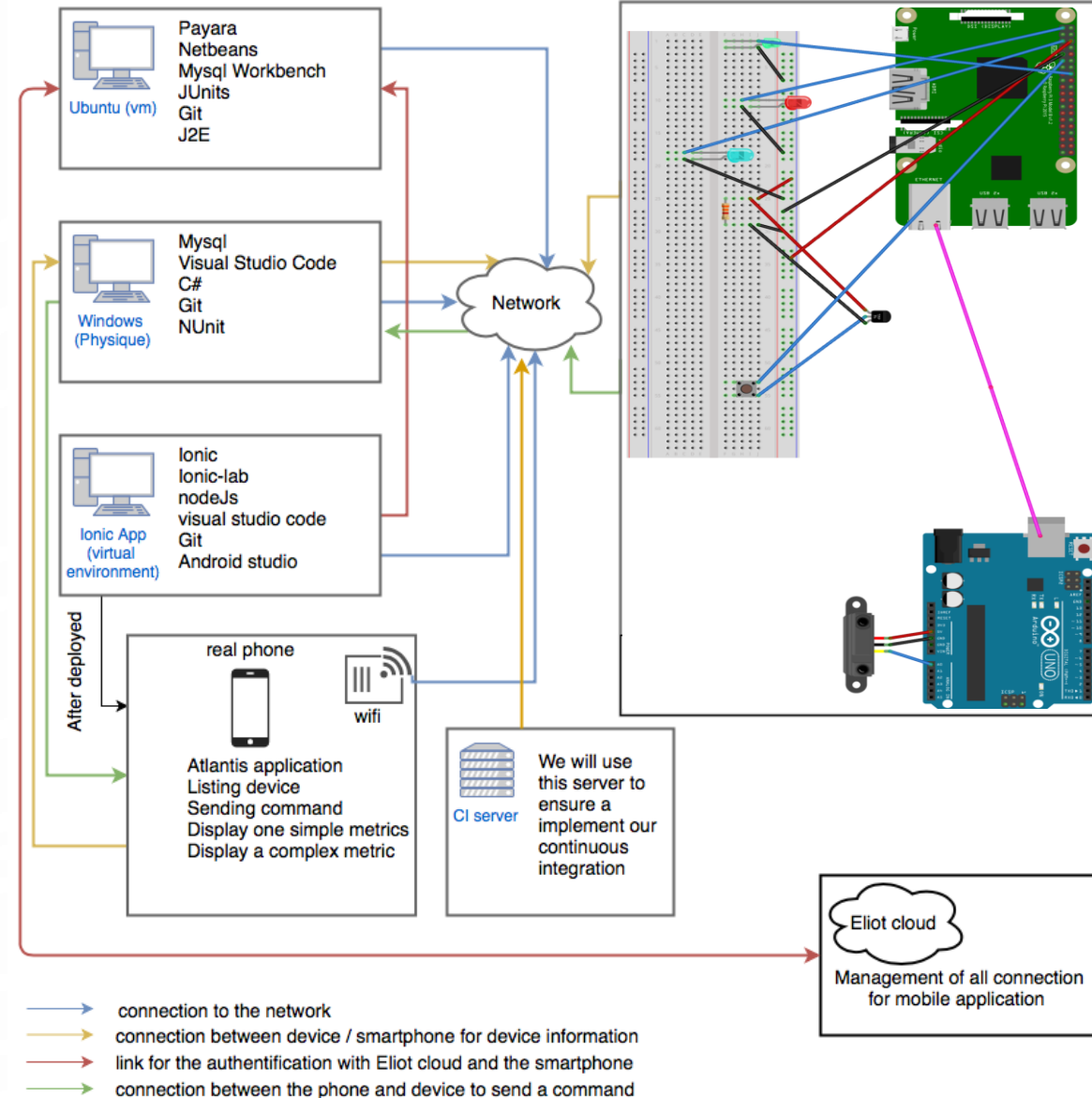
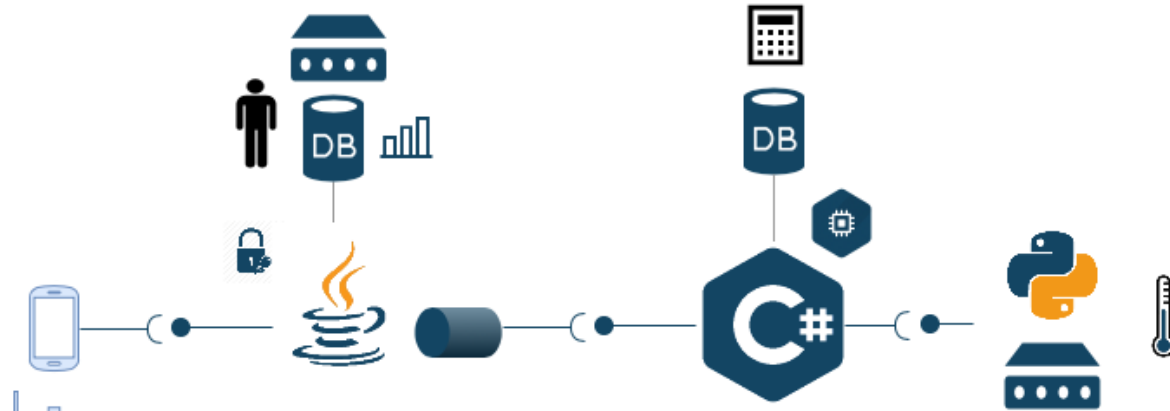
CONTEXT / REMINDER OF THE NEED

In July 2015, Legrand Group officially launched ELIOT, a program dedicated to connected objects in a "smart city".

The city of tomorrow should be smart and connected. More and more real-time services are expected from city authorities :



EXPLANATION OF THE GLOBAL ARCHITECTURE



MOBILE PLATFORM

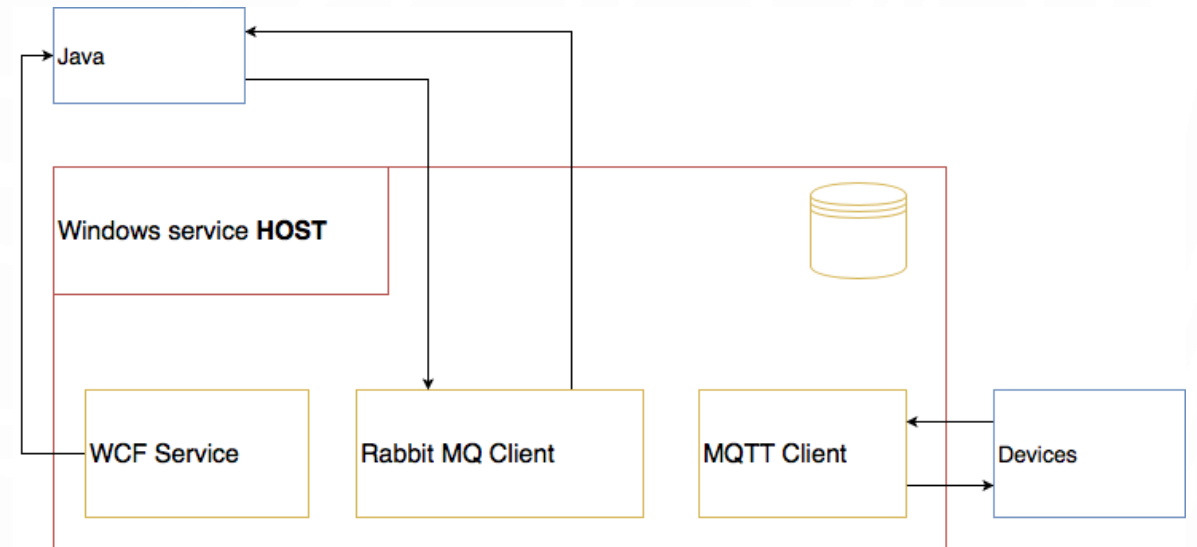


- Display the user devices' list
- Display at least one metric of a device
- Display at least one calculated metric of a device
- Display metrics with a chart
- Allow the user to send an order to his device
- Application can be used on multiplatform

.NET PLATFORM

- **C# Platform**

- **Windows Service Host**
 - Host all projects
 - Run service continually
- **WCF**
 - API Device simulation
 - API Calculated metrics
- **MQTT Client**
 - Real time metrics
 - Publisher / Subscriber
 - Calculation Engine
- **Rabbit MQ**
 - Real time with J2E
 - Publisher / Subscriber
- **Database**
 - Complex metrics
 - Calculation type



C#

Advantages of our platform: Real time, hosted services

JAVA EE PLATFORM

- **Rest API**
 - Receive complex metrics sent by C# platform
 - Send data to mobile application
- **Database**
 - Users
 - Devices
 - Metrics
- **Admin back office**
 - Secure connexion with Payara
 - Create a new user
 - List all devices registered on the platform
 - Associate an user to a device



Advantages of our platform: Load balancing, persistence, transactional management and security.

IOT PLATFORM

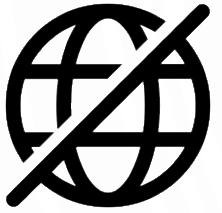
- Send temperature data every one second
 - Temperature sensor
 - Distance sensor
- Can receive and execute a command
 - Turn off the light (Represented by a LED)
 - Turn on the light (Represented by a LED)
 - Show and take a picture
 - Record videos



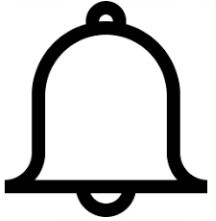
DEMONSTRATION



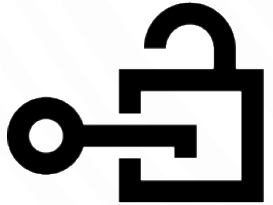
IMPROVEMENTS



Offline mode



Notifications



Eliot authentication

QUESTIONS / RESPONSES

